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RICHMOND AND LOUISVILLE

MEDICAL JOURNAL.

E. S. GAILLARD, M.D.,

EDITOR AND PROPRIETOR.

BOSTON MEDICAL LIBRARY ASSOCIATION

Vol. VII. and VIII.

LOUISVILLE, KY.

1868.

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MEDICAL JOURNAL.

VOL. VIII. JULY, 1869. No. 1.

ORIGINAL COMMUNICATIONS.

"Qui Docet Discit."

ART. I.—THE POSITIVE INDICATIONS FOR BLOODLETTING.

By SAMUEL C. CHEW, M.D., Professor of Materia Medica and Therapeutics in the University of Maryland.

The general question of the value of bloodletting as a therapeutic measure scarcely requires consideration at the present time; for, although by some writers the abstraction of blood has been denounced, as under almost all circumstances, an unmitigated evil, yet there seems to be now a very general consent among all schools of medical opinion, that in certain conditions of the system, beneficial effects may result from its employment.

As subordinate, however, to this general question, there are some points of great interest in relation to bloodletting, which still demand investigation, and in regard to which there is by no means an agreement of opinions among authorities: One of these is the mode in which bloodletting produces its effects.

As a subject for consideration it may be thus proposed:

Are there any conditions, and if so, what are they, in which bleeding may be resorted to, not simply because it

has been ascertained empirically to be capable of doing good, but as a measure, the use of which is based upon *a priori* grounds; a measure, that is, which is scientific in its nature, because it is used for the accomplishment of certain ends, to the production of which ends, it can be seen to be in itself adapted?

Is there an intelligible relation of cause and effect between the measure employed and the ends in view? Are cases met with, in which bloodletting may be practised, not only from having been found useful in apparently similar cases; but because evidently conducive of such a change in the condition of the organism, as must, so far as it is concerned and so far as it is uninterfered with, tend to facilitate the return to health?

The most scientific practitioner must, it is true, often have recourse to enlightened empiricism, so long as he has no better guide; but just so far as he is able to substitute for empiricism, the rational application of remedies, will his practice be proportionally accurate and scientific in the strict sense?

The effects of bloodletting are more capable of being accurately reasoned upon, than those which result from the administration of medicines; partly perhaps, because they are more immediately brought about, so that there is less room for the fallacy of confounding the *post hoc* with the *propter hoc;* and partly because they are produced, to some extent at any rate, in accordance with the known laws of physics.

Upon this latter assertion, which has reference to the *modus operandi* of bloodletting, it is the object of the writer to offer some remarks.

If the various conditions be investigated, in which, from time to time, and with more or less reason bloodletting has been advocated as a remedy, it may be established as a principle, that the degree of its usefulness is in direct

proportion to the clearness, with which its action can be explained in accordance with the operation of the physical laws.

As a very general rule, the cases in which the effects of the measure are not thus explicable, are just those in which it is of questionable utility, an *anceps remedium* at best.

To test the truth of this statement it will be necessary to consider some of the most important of the various conditions in which bloodletting has been employed.

Let the case of the idiopathic fevers be first examined.

At a time not very remote in the past, the symptoms which characterize the febrile state, were regarded, if sufficiently developed, as imperatively demanding the abstraction of blood, even when entirely independent of any discoverable local inflammation. This will be abundantly established by reference to the pages of Armstrong, and to the more recent writings of Macintosh, and of Copland. Even Dr. Latham, certainly one of the wisest and most enlightened physicians of his day, asserted about forty years ago that he found occasion for bleeding one in four of the patients whom he treated for continued fever; and that he applied leeches to nearly all of them.

With our present pathological knowledge, we are at a loss to discover any rational ground for such practice, which owed its orgin perhaps to the influence exerted by the idea of a *phlogiston*, a combustible something circulating in the blood, which it was necessary to remove.

The same phenomena that were then supposed to indicate the necessity for bloodletting, are encountered now, and in as great a degree of intensity as they were then.

In the hot stage of remittent fever, there is presented a typical combination of the symptoms that characterize the febrile state; the flushed face, burning heat, and full

quick pulse; but no one at the present day thinks of bleeding on account of these symptoms, because it is well known that in the due course of the disease the febrile condition, however intense, will decline of itself.

It will be said, perhaps, that the practice in question was attended with good effects; that fever patients got well under the bleeding. But in reality, the recorded results of the practice do not prove this at all; they show nothing more than that in the typhoid form of continued fever, bleeding is better borne and is less injurious than it is in the typhus.

No reason whatever can be shown for the employment of bloodletting in such cases; and not only are we justified in relegating the measure to the domain of empirical appliances, whose use does not rest upon a scientific basis; but, furthermore, as a clinical fact, bleeding in fever cases has been almost universally abandoned by the profession. "Without condemning the ancients," says Dr. Richardson in his article upon bloodletting, which has lately attracted a good deal of attention,* "who acted according to their lights, I am inclined to think that bloodletting may be let pass as a remedy of the past in acute inflammatory fever; and I would extend this to all the exanthemata and fevers in their acute stages—*one excepted.* I believe still that bloodletting is of distinct service in typhus when there is great excitement, with insensibility, excessive heat and extreme vascular tension."

The exception thus made by Dr. Richardson in favor of the use of bloodletting in typhus fever, will in most minds certainly excite some surprise at first. For it is

* The article alluded to appeared in a recent number of the Practitioner. In a reference to it which is made in the March number of that journal, it is characterized as "a paper full of cleverness, but advocating a view so antique that one had almost to rub one's eyes to convince oneself that the last thirty years of medical life were not a mere dream."

precisely in cases of typhus fever, as distinguished from typhoid, that we have come to regard debilitating measures as specially injurious: it was precisely in cases of typhus fever that Dr. Latham, in his later experience, could not venture to draw blood; the condition of his patients urgently demanding support, and prohibiting all lowering measures. This conclusion is corroborated by nearly universal observation. And yet this exceptional case thus referred to by Dr. Richardson, if examined carefully, so far from contravening the proposition that bloodletting is useful in proportion as its action is explicable by physical laws, may really be adduced in support of that proposition. For, be it observed, it is not as a remedy generally applicable in cases of typhus fever, that he professes to find benefit from bloodletting, but only when such co-existent symptoms are met with as "insensibility and extreme vascular tension;" symptoms which, it is easy to conceive, may be relieved by lessening the force of the heart's action. The remedy, that is, may be useful, not as against the febrile state itself, but by relieving a special condition, viz: cerebral congestion, through the action of physical laws.

The use of bloodletting, then, in such cases, even if proved to be beneficial, does not invalidate the proposition that it is not a remedy for mere febrile action; on the contrary, it lends support to the assertion that when beneficial, the action of the remedy may be explained in accordance with the laws of physics.

The conditions met with in cases of cerebral congestion and in apoplexy may also be referred to in illustration of the scientific employment of bloodletting. Indeed, in the treatment of these affections the most important therapeutic question involved is, whether or not venesection should be resorted to.

The cases of apoplexy in which this measure should be

employed, are comparatively very infrequent; in much the larger proportion, it is clearly contra-indicated; and contra-indicated because in such cases from the physical conditions involved, it is incapable of bringing about the relief that is aimed at; whereas, in the comparatively few instances in which it may be used advantageously, its benefits can be accounted for upon the principles of physics.

As regards bloodletting in an apoplectic seizure it is of great importance that the diagnosis should be made between actual congestion of the brain, and extravasation of blood within the cranium; a discrimination which is at times not a little difficult. Yet there are certain points by which the two conditions may be with more or less certainty distinguished from each other.

If there be marked congestion of the face, heat in the head, with pain not limited to one side; a full, hard pulse, absence of hemiplegia, or unilateral convulsions; the condition, under these circumstances is probably due to active congestion rather than to extravasation. If, on the other hand, hemiplegia exists with much disturbance of respiration, and *especially if coma have come on somewhat gradually*, the apopletic stupor being slight at the onset, and afterwards thoroughly established, the symptoms point to extravasation of blood pressing upon the brain substance.

Now, in the former case, bloodletting may give relief by diminishing active pressure, and thus allowing congestion to subside; and both the rational character of the measure employed, and its modus operandi, may be inferred from the fact, that this active congestion of the brain is known to be sometimes associated with hypertrophy of the heart. Such cases of simple cerebral congestion are, however, comparatively infrequent.

In the other class of cases, when the apoplectic symp-

toms are dependent upon actual extravasation, bloodletting cannot possibly lessen the pressure of the effused clot, and thus remove the cause. "I reject bloodletting from the treatment of cerebral hæmorrhage," says Trousseau, "because experience has taught me that patients do better without it. For when I reflect upon what happens, I do not see how the method can be of any use, since the hæmorrhage is an accomplished fact, when we are called upon to note its symptoms. What influence can be exerted upon a foreign body in the shape of extravasated blood, by letting out blood from a vein of the arm, or of the foot, or from the jugular? Reasoning, therefore, agreeing with experience, pronounces the treatment useless against which I raise my voice."

Both classes of cases, therefore, illustrate the position assumed. In cerebral congestion, bloodletting may be useful by removing the physical cause of the symptoms; in cerebral extravasation it will be ineffectual, because incapable by any physical process, of taking off the pressure caused by the clot.

Somewhat allied to the cases just considered, so far as its effects are concerned, is the condition termed uræmia; and the question of the advisability of bloodletting, in this state, is a very interesting one.

Dr. Benj. W. Richardson urgently recommends bloodletting as of supreme importance, in the treatment of uræmia; but if his statements be closely examined, it will be seen that it is mainly against certain conditions which may or may not be superinduced by the uræmia, that he employs venesection; and not simply on account of the presence of the poison in the blood.

"When the coma is fully developed," he remarks, "and the patient is unconscious, and the skin hot and the convulsion strong, there is no remedy so swift, so sure, so useful, as the lancet. * * * To bleed is to remove tension from the brain."

Now, in cases characterized by the symptoms of cerebral congestion referred to, it is very easy to conceive how the remedy may give relief. But there are other cases of uræmic poisoning in which bloodletting is not found to be so safe and sure a means. In the advanced periods of chronic Bright's disease, in which the elimination of urea may have been failing, and the symptoms of uræmic coma increasing day by day, although the blood be evidently charged with the poison, yet it is not found that benefit results from its abstraction. Upon this point let Dr. Christison speak, than whom few have had larger opportunities for observing the disease:

"In the coma which constitutes the final stage of suppression," he says, "in long continued organic diseases of the kidneys, no remedies are of much avail; *bloodletting does no good, and sometimes evidently accelerates death.*"

There is another condition intimately connected with uræmia, of great pathological and therapeutic interest; and that is puerperal eclampsia.

It seems to be the received doctrine at present, that the convulsions of pregnant and parturient women are very commonly of uræmic origin; and it is certain that the remedy most depended upon until within the last few years, if we accept the statements of systematic writers, was bloodletting.

Now, what is the story of bloodletting in puerperal convulsions, as gathered from the general experience of accoucheurs? Is it not one of utter failure in a large proportion of cases? "The reports," says Dr. Tyler Smith, "of those who have most pertinaciously followed bloodletting in puerperal convulsions, exhibit the loss of a greater number of patients than those who have been more cautious in this respect."

There are, no doubt, cases of puerperal convulsions in which bloodletting is highly serviceable; and the differ-

ent results of the measure in such cases, and in the many in which it fails of doing good, must be ascribed to different pathological conditions in the two classes of cases respectively. Thus, when the convulsions are apoplectiform in character, and connected with active cerebral or spinal congestion, venesection would seem to be indicated. When, on the other hand, they are of an epileptiform character, and dependent probably upon irritation of the nervous centres caused by retained urea, it is very questionable whether bloodletting is capable of giving relief. And it is the latter class of cases that is the most common.

"Is it," says Trousseau, "under circumstances denoting cerebral congestion, that women are ordinarily seized with eclampsia? Ask accouchenrs, and they will tell you that eclampsia manifests itself often before any signs of labour have shown themselves."

For controlling puerperal convulsions dependent upon uræmia, a far better means than venesection is found in the inhalation of chloroform.

Dr. Braun, of Vienna, in his valuable essay upon uræmic convulsions, states that in this condition he has "observed results from the administration of chloroform, which have surpassed all expectations;" and the very general opinion of the profession seems at present to accord with his conclusions.

A consideration of these various conditions makes it probable that bloodletting gives relief in those cases of uræmia to which it is adapted, not so much by simply removing urea along with the abstracted blood, as by relieving the congestion of the nervous centres, that is sometimes, but by no means invariably, connected with the uræmia.

Dr. Richardson seems to ascribe the good effect mainly to the removal of the urea-saturated blood; but it is evi-

dent that there is, relatively to the whole quantity of blood, just as great an amount of urea in it subsequently to the bloodletting, as there was before.

Moreover, if this were the mode in which the remedy gives relief, it ought to be found serviceable not only in acute uræmia, to which Dr. Richardson limits its application, but also in the more chronic cases, and in the puerperal conditions which are equally dependent on the presence of urea in the blood. On the whole, therefore, the claims of bloodletting, as a point of scientific practice in uræmia, may be based rather upon its effect in relieving congestion when that has occurred, than upon its power of removing urea from the system.

Another malady that requires consideration in connection with the scientific employment of bleeding, is pneumonia, which constitutes, as is very well known, the principal battle-ground upon which the bloodletting controversy has been fought.

There is full warrant for the assertion that in no disease are the good effects of a remedy more obvious, or more clearly explicable on rational, scientific grounds, than are those of bloodletting in pneumonia, when it is applied to appropriate cases. Certain symptoms sometimes met with in this disease, and due to a change in the physical conditions of the lungs and heart, are relievable by venesection in a manner perfectly intelligible upon physical principles. These are dyspnœa, and oppressed, laboring action of the heart; symptoms which are by no means of constant occurrence in pneumonia, and hence venesection is not applicable to all cases of the disease, as it was once believed to be by the French school of practitioners. But let there be present in pneumonia a certain amount of dyspnœa, and a certain degree of hardness and force in the pulse, and it is as well established as any other fact in medicine that relief to these symp-

toms may be obtained, by the abstraction of blood from the arm. About the fact itself there is no room for controversy; and a moment's reflection upon the physical condition of the lung in those cases of pneumonia in which venesection is used with most advantage, will suggest an explanation of the mode in which the result is accomplished.

A physician is called to a patient whom he finds breathing twenty-five or thirty times in a minute; the muscles of respiration are straining painfully, the percussion sound over the thorax is somewhat dull, and crepitation is audible. The pulse being hard and resisting, he bleeds such a patient from the arm to the amount of twelve or fifteen ounces or more, with the effect of speedily and completely relieving the dyspnœa and tensive pain.

Another case is seen in which dullness of the thoracic wall and fine crepitation are likewise noted, with febrile action; but dyspnœa is very slight, or perhaps not experienced at all. Here the propriety of bloodletting will not be very apt to suggest itself to the medical attendant. Both cases, however, are typical instances of pneumonia; both have, in common, the element of an inflammatory process going on in the lung. But in the former case there is another element not met with in the latter, and that is, the dyspnœa. Hence the inference is very obvious, that in that former case venesection has been beneficial, not so much by a direct influence over the inflammatory process, as by lessening the rush of blood into the incapacitated lung on the one side, and into the over-worked lung on the other side, and by unloading at the same time the engorged right chambers of the heart.

English and American physicians, whatever their views in regard to the effect of bleeding may be, yet as a practical matter do not in general resort to it in pneumonia,

unless some degree of obstruction to the circulation and respiration exist. And it is just in reference to this point that some of the French physicians are chargeable with the pernicious error of bleeding pneumonic patients, for no other reason than that an inflammatory process can be detected in the lung.*

The element in pneumonia against which venesection is serviceable, is not the inflammatory process itself, but the dyspnœa and the embarrassed action of the heart that result from engorgement and distension. The more suddenly pneumonia has occurred, and the more rapidly a large portion of a lung has become disqualified for the performance of its function, so much the more urgent is the dyspnœa, and the more manifest will be the relief from venesection. Whereas, if the removal of blood were beneficial chiefly by its direct influence over the inflammation itself, its benefits would be equally conspicuous in pneumonia unattended with marked dyspnœa, and it would be more commonly resorted to in such cases than it is. It is worth remarking, in this connection, that Dr. Chambers, while attributing to bloodletting the power of checking the march of inflammation, and ascribing its good effects in pneumonia to this power, nevertheless points to dyspnœa as the best guide to the employment of the remedy in this disease; thus showing that, practically, he regards it as a mechanical means for removing a mechanical obstruction.

Pneumonia, therefore, furnishes another and perhaps the most satisfactory illustration of the proposition that general blood-letting acts upon mechanical principles,

*This Gallic practice, however, seems happily to be losing its reputation even in its old stronghold. An indication of this is furnished by Dr. Brichiteau's recent work, "La Saignee: Effets Physioligiques et Indications Therapeutiques;" in which the author strongly advocates the view that the good effects of bloodletting result from its mere mechanical influence.

and in accordance with the laws of physics. In the various conditions that have been referred to as cases in which it is clearly of service, it is altogether a part of scientific practice, because in employing it we employ a means fully adequate, in the mode and measure of its action, to the accomplishment of the desired end.*

ART. II.—ENCEPHALOID TUMOUR OF ANTRUM—REMOVAL OF SUPERIOR MAXILLA—RECOVERY. By DONALD MACLEAN, M. D., L. R. C. S., Edinburgh. Professor of Surgery and Clinical Surgery in the Louisville Medical College.

Case.—J. W., from Casey county, Ky., æt. 54, married, was introduced to me April 1st, by Dr. Coleman Rogers. Complained of a tumour on the left side of the face, and of which he gave the following brief history. Eighteen months ago, patient noticed that his left nostril was somewhat obstructed; had no pain in the face, but a slight sensation of fullness. Obstruction of the nostril soon became complete, and slight swelling appeared on that side of the nose. General health good. Medical advice was obtained, and various external applications made without effect. Within the last three months, the swelling has increased, especially towards the mouth, and there is now a good deal of deep, gnawing pain all over that side of the face. On examination, the left antrum was found completely filled by a soft, pulpy mass, evidently encephaloid. The anterior wall of the antrum and the hard palate on the left side have both been absorbed, so that the tumour lies immediately beneath the skin of the face and the mucous membrane of the roof of the mouth, adherent to the latter, but fortunately not to the former.

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*It is to be regretted, that the author has not included in his list of indications for bloodletting, idiopathic and traumatic pleurisy—pulmonary hæmorrhage, several diseases of the heart, etc. His descriptions, in these connections, would have added additional interest to his interesting paper.—ED.

The tumour does not appear to involve any of the other bones of the face or cranium. I informed the patient truly as to the progressive and destructive nature of the disease; the advisability of its immediate extirpation, the excellent prospect of rapid recovery from the operation, and, with no less distinctness, the chances of adverse ulterior contingencies. He at once determined to return, as soon as he had arranged some private matters at home, and submit to the operation; accordingly he again called on me on the 11th of April. In the interval, the tumour was found to have made very considerable progress. The swelling had extended outwards on the face, (i. e., towards the malar bone) and the mouth was considerably fuller. The patient was fully conscious of the progress in these directions, and he complained of more constant and acute pain. Otherwise his health was good. On the 13th, assisted by Drs. Octerlony and Coleman Rogers, and Mr. G. Herchmer, I performed the operation as follows, chloroform having been fully administered by Dr. Octerlony. The first incision extended from the inner angle of the eye, down to the mouth at the middle of the upper lip; from the upper end of this a second was carried outwards along the lower margin of the orbit to the maxillary process of the malar bone. The flap thus formed was reflected, and several enlarged arteries tied as soon as divided, and pressure employed to check the copious hæmorrhage from the general surface of the tumour. The eye and subjacent tissues were carefully dissected from the orbital plate, the mucous membrane of the roof of the mouth divided throughout its whole extent, the bone isolated by sawing and nipping through with the bone pliers; the alveolar, palate, nasal and malar processes, and the pulpy mass, without any difficulty (except what resulted from its want of cohesion) wrenched out. No vessels were tied in the cavity. The most care-

ful examination convinced all present, viz: besides the gentlemen before mentioned, Drs. Lewis Rogers, Brandeis, Logan, Satterwhite and Turner Anderson, that the whole of the diseased tissue was removed. The cavity was stuffed with lint soaked in a solution of carbolic acid, and the edges of the wound drawn accurately together with silver sutures. The progress of the case after the operation was as satisfactory as could possibly be desired. The wound healed by the first intention. The cavity soon commenced granulating, with every appearance of healthy action. The functions of deglutition and articulation, at first somewhat impaired, were in the course of the first week as fully restored as could be expected under the circumstances. The patient slept and ate well without medicine of any kind; indeed, it may be worth while to mention here that, except a mercurial purge, the day before the operation, one dose of McMunn's elixir immediately after, and one dose of castor oil on the third day after the operation, no medication whatever was resorted to, and this notwithstanding that erysipelas appeared on the face on the fourth day. This complication was just permitted to run its course, as it would have done, even in the face of the most strenuous efforts to arrest it; and at the end of a week it had disappeared, after having passed all over the head and neck, without, however, causing serious inconvenience. On the eleventh day after the operation the patient returned to his home, a distance of more than 100 miles, and on the 31st of April I received a note from him, dated on the 30th, in which he says, "I have improved every day from the time I left you, and am now in fine spirits."

The structure of the tumour, when submitted to microscopic examination, was found to vindicate the opinion which had been confidently expressed, as to its malignant nature.

ART. III.—MAMMARY ABSCESS. By J. B. GARRISON, M.D., Woodville, Tenn.

Case 1. In the autumn of 1867 I was called to see Mrs. H., a lady of delicate habit, who had been suffering for some days with pain in the *right* mamma which had been noticed first coincidently with the usual symptoms of mammitis. She was nursing her fourth child, some eight months old, and informed me that during each former lactation, and when the present child was but a few weeks old, she had an abscess of the breast, requiring each time the use of the lancet, and resulting in great detriment to her general health. Competent medical attention was in each instance unavailing to effect resolution after the development of the inflammatory symptoms. The patient expressed herself as without hope as to a favorable issue, inasmuch as everything had been done for her previously which medical skill and experience could dictate. Upon examining the breast I found a very hard tumor, including one third of the gland, situated superiorly. The surface was of a bright, red color, over the centre of the tumor, and corresponding to about one half its diameter. It was hot, painful and so tender as hardly to admit of the palpation necessary to form a proper diagnosis. I ordered the breast to be emptied as thoroughly as possible of its contents, and leeches not being at my command, and the patient too anæmic to think of general depletion, I administered a cathartic to be followed by belladonna and morphia, and ordered an emollient and anodyne poultice. On my return next day I found the patient no better, *as expected.* The pain was somewhat diminished by the narcotics, but the tumor still excessively tender and presenting a considerably darker appearance. There being no evidence that pus had already formed, I concluded to try Byford's *cold water* treatment, which struck

my fancy as a very philosophical method, when I first read his book. I directed the attendant to keep cloths, wrung out of cold water just brought from the spring, *constantly applied* to the tumor, and that they be changed every one or two minutes at first, gradually extending the interval to three or four minutes, as the temperature of the part diminished. On my return next day my patient considered herself *well*. The cold water had been applied unintermittingly for sixteen hours. There was no pain, tenderness, heat nor redness, and the tumor was considerably diminished in size. I directed the application of belladonna ointment twice a day, the child to be weaned, and cold water to be reapplied, if there was any return of the former symptoms. There was no further trouble. The tumor gradually decreased under the application of the ung't belladonnæ, and at the end of a month, disappeared.

Case 2. On the twenty-first of March, 1869, the same lady was delivered of her fifth child, at which time I was present. Two days afterwards the *left* mamma became engorged, tumid, painful and presenting a bright red surface, three inches in diameter, on the superior portion. It was hard and tender over the whole gland, but the tenderness was somewhat increased over the circumscribed red portion. This mamma had been the seat of repeated abscesses as evidenced by large cicatrices and unsightly contractions. The redness was confined to a part bounded laterally and anteriorly by three bands of cicatricial tissue. Efforts were made to relieve the breast by the pump and mouth, but in vain. The nipple became livid, swollen and excessively painful, and but a few drops of milk could be drawn, and that not without great exhaustive force and consequent pain. I ordered the cold water application, *ut supra* and *nothing else*. On my return, next day, my patient was *entirely well*, and a con-

firmed believer in hydropathic therapeutics as far as "gathered breasts" were concerned. The applications had been continued ten hours, and at the end of that time the milk *ran out* of its own accord. The infant has regularly ever since received its proportionate share of supply from that gland. The first application gave considerable relief, and there was no pain after a few hours. The patient took no "cold," the nurse taking care that the water was confined to the inflamed breast.

ART IV.—BELLADONNA AS ANTI-GALACTIC, AND IN THE TREATMENT OF FISSURED NIPPLES. By P. E. WHITEHEAD, Vicksburg, Miss.

The anti-galactic properties of belladonna are well known, but I do not remember to have seen mention of its use in *cracked or fissured nipples*, and having made use of it in one case with the happiest results, I send you an account of it, with the hope that it may aid others, as it did me, in the treatment of that usually intractable complaint.

I recently attended a lady who, a short time after her first confinement, was much distressed by two deep fissures, extending almost entirely around the base of the nipple, and whenever the child was allowed to use that breast she suffered excruciating pain.

After exhausting my ingenuity, and her patience, with every conceivable remedy, I determined to take the child from the affected breast, and keep it (the breast) in a state of complete rest; at the same time I applied the extract of belladonna to prevent mammillary abscess. In three days the fissures were entirely healed. The mother had suffered no inconvenience, and the breast, which I again allowed the child to have, soon became as good as before the use of the belladonna.

Every one who has witnessed the annoyance peculiar

to these cases, can imagine the happiness of the lady in being relieved of her suffering, and at the same time having the usefulness of the breast preserved.

On the eighth day of February I attended a lady in her confinement, whose infant perished in three hours after birth. In about fifty hours, there was a full secretion of milk, the breast becoming hot and painful. I applied a plaster of belladonna, and in twenty-four hours all pain had disappeared, without the breasts having been drawn. At this time the lochia, which had been free, ceased altogether, resisting all the remedies which I applied to induce their return. Forty-eight hours after its application, the belladonna was removed by the lady; next morning I found the breasts again full and painful—one of them, which had been incised for abcess in a previous labor, I thought would certainly require the use of the knife again. The lochia were again reëstablished. I had the breasts drawn, and reapplied the belladonna, which acted as happily as before in arresting the lacteal secretion and threatening abcess, but the lochia were also arrested again. In forty-eight hours after its last application, I removed the belladonna, when the lacteal secretion appeared to be completely dried up, and the breasts gave no more trouble. The lochia did not appear again for a week.

ECLECTIC DEPARTMENT.

"Carpere et Colligere."

ART. 1.—ADDRESS OF WM. O. BALDWIN, M. D., President of the American Medical Association.

Gentlemen of the American Medical Association: I congratulate you on the return of an occasion which permits us to renew that fraternity of intellect, no less than that sympathy of feeling by which our life and vocation as physicians are beautified and ennobled. Of no profession are the inspired words more true than of ours, that we are "members one of another." The ideal of our profession is that of complete and thorough oneness. What is scientific truth for one is scientific truth for all. We have a common estate in the facts, aims and purposes that belong to the science of medicine, and hence we do a wise work, when we acknowledge the exalted unity of the medical profession by this annual assemblage.

The nature of this occasion reconciles me in some degree to the task which I have now to perform. When I remember that the position I occupy was first filled by the distinguished Chapman, and that the succeeding anniversaries have been presided over by men whose genius had shed not only light but lustre on the annals of our profession, I feel that nothing but the inspiration which breathes through affections kindled into life by this Association, could sustain me under the sense of incompetency for the duties to which your kindness has called me. Relying on the same spirit which prompted you to confer on me the highest distinction within the gift of the medical profession of America, and hoping that my deficiencies may be forgotten in the interest and magnitude of the subjects awaiting your deliberation, I proceed to discharge the duty, which the custom of my predecessors has imposed upon your presiding officer.

The spirit of a profession is the true sign of its character, as it is the measure of that respect with which its talents and services are regarded. Manly sentiment, springing from broad and genial sympathies, is the soul of every profession, and if it is wanting, no learning, no

skill, not even usefulness, can prevent it from sure and speedy degradation. The first and last requisite of professional life is not power of intellect, however valuable that may be, nor those acquisitions of knowledge that enrich our thoughts, but that other and finer quality of generous manhood which, as a subtle and pervading essence, enters with its healthy vigor and animating impulse into all its connexions. Of our profession, this is eminently true, and, on this account, I rejoice that the records of this Association give no evidence of sectional unkindness and prejudice, even during the period of our bloody war.

To me, gentlemen, this occasion is one of solemnity and significance. Standing here in the great commercial metropolis of the South, I find myself surrounded by men representing nearly every section of a country so lately arrayed in hostile strife. At a time when every other organization has been shaken to its centre by the passions of deadliest hate; at a time when the most matured conservatism has been over-mastered by the vindictive fury which has swayed the popular mind; at a time when even instinct has been treacherous to its ends, you have been drawn hither from homes far distant, over highways full of painful historic incidents, through territories watered by the blood and tears of a sorrowing nation, and you have assembled here as brothers and friends to unite your offerings to a common science. The mournful witnesses of this terrific struggle have confronted your eyes; the shadowy phantoms still linger on the stage where these tragedies have been performed; the air we breathe has not yet lost its echoing groans of dying heroism, nor the pathetic anguish of sorrowing relatives. Amid these circumstances so sundering to the most sacred companionships of life, you have met in the spirit of Him who is this world's greatest and best Healer —that Divine one who, opening and continuing his ministry of service, by curing all manner of diseases, finished its majestic self-denial in the reconciliations of the cross.

Eight years ago we were separated by civil war. That war engendered the bitterest feeling in every other national organization, whether scientific, political or christian; but the members of this Association, without words of crimination or reproach for one another, assumed the respective places assigned them by the obligations of citizenship. Through the long and bloody contest

which ensued, this Association, in its resources, honor and renown, was in the keeping of our northern brethren; and during those memorable years when the sense of bitter wrong and burning hate filled all hearts, and when friendships and affections born of the hallowed ties of consanguinity sent their messages—once of love and tenderness—at the point of the bayonet or through the cannon's mouth, what were the feelings which moved this Association?

At the first meeting, two years, after the war began, they indulged only in expressions of profound regret that "the brethren who once knelt with them at the same holy altar and drank with them at the same pure fountain"* had been separated from them by civil war, endangering thereby the claims of the Association "to an unselfish nationality, and robbing it of the presence and the counsel of many of its warmest adherents,"† while praying at the following meeting that the period would soon come when we should again be "one in our political, professional and social relations."‡

The same humane and catholic spirit continued during the war to mark the conduct of the members of this Association. Each of the divided sections met the tasks required by its respective position. But wherever found, whether sharing the hardships of the campaign or discharging the duties of private practice, they comprehended the essential difference between what might prove on the one hand a transitory evil, and what on the other hand, they knew would be a lasting good. Accordingly they remained the consistent representatives of a noble brotherhood. If they did not sink the patriot in the physician, they did not sink the physician in the patriot. The imperative instincts of each character true to its trusts and faithful to its requirements, acted for themselves and in the direction of their own ends. Amid the shouts of battle and the shock of arms, they raised themselves to the height and grandeur of their calling, and thus stood far above the embittered prejudices that encircled all other classes of men. So far from allowing the fugitive passions of the times to betray them from their professional allegiance, they vindicated their sagacity, no less than their manliness, by looking to the future—by contemplating results not the less certain because remote,

* Transactions, 1863. † Transactions, 1863. ‡ Transactions, 1864.

by regarding with thoughts chastened and subdued that state of man in which the interests of life and death meet together; and by considering as paramount to all selfish motives the claims of that science with whose undisclosed mysteries they must yet wrestle for the well-being of mankind. Above all, they looked to the transcendent value of a virtue, which should contrast in broad masses of light, its purity and power with the corruptions and frailties of the hour, which should, by reason of its disinterestedness, diffuse itself through the affections of nations, and reach, in the large outgoings of its sympathy, the hearts of generations yet unborn.

When at last this dispensation of carnage ended, and whilst as yet the war-path was crimsoned with the blood or whitened with the unburied bones of our brethren, this Association again met. Like the surges of the sea, dark, tumultuous, raging, though the storm, has passed from the sky and fled beyond the horizon, the meaner instincts of hatred, revenge and persecution still swayed the multitude. The mob of fanatical intellect unappeased and the mob of popular passions thirsting for new strife, joined their hands to prolong the wretched alienation. The avenging angel had lifted his brooding wings from the landscape, and cried, "It is enough;" but now other vials of wrath seemed about to be poured forth on a land hopeless because helpless. You then met to pour oil on the unquiet waters. Here was scope for a statesmanship, aye, for a generalship grander than any which the war had developed. Here was the best of opportunities to inaugurate a new epoch of fraternal sympathy. Nor were you unmindful of its solemn behests. True to your past professions of regret over our separation, you saw the vacant seats in this Association of your Southern brethren, and, actuated by the higher instincts of manhood, and scorning the base ambition to degrade a fallen antagonist, whom the saddest experience had taught the bitterest lessons of life, you set the nation an example of dignity, moderation and virtue, to which no other organization in the land has yet had the wisdom or the sensibility to rise.

Within a few weeks after the cessation of hostilities, this Association held its regular annual meeting in the city of New York, and there renewed with manly sympathy its former expressions of kindness, inviting us to come again and be their brethren. I quote their onw

language on that occasion when I say—"the unhappy feud which for years has divided the nation has ceased and peace has come, we trust forever; so we hope soon again to meet our members and delegates from the South on the platform of fraternization, and to this end we extend to them a cordial welcome."* At a subsequent meeting you repeated this sentiment in the following language: "we would fain meet again those from whom we have been separated, draw the mantle of forgetfulness over the past, renew to them the expressions of regard, and with them, dedicate the hour and the occasion to the sacred cause of learning, friendship and truth."†

And when at the last meeting we met our Northern brethren, how were we received? They met us as equals in the past and equals in the present, saying in effect, if not in words: "if quarrel we ever had it is over; we have no explanations to offer, no apologies to demand; we know that we have done our duty; we feel that you have done no more, and that you would have been unworthy your noble vocation had you done less; we have guarded faithfully the institution so long left in our charge, in which we now claim but an equal interest with you; with the incense which we have burned in its sacred fane we have not permitted the poisonous spirit of party to mingle, and we now invite you to go with us to the smiling and peaceful fields of that science whose interests it shall be our common work to foster and advance; here we will walk with you to the stern realities and sublime grandeur of labor and thought, and find in their quiet paths a relief from the gloom of the past; here we will divide with you the toils and share with you the rewards of labor, the labors of success." Against the insolence of the day; against its unreasoning pride, its overweening vanity and its shameless scorns, your conduct bore a moral protest, which while acting directly on our profession, has had no small agency in producing those indications of a return to reciprocal sentiments of confidence and respect in which all the good men of the country rejoice. The mythical war between the Athenians and Amazons, led in the midst of arms to the most intimate friendship between the leaders. When Pirithous and Theseus

*Resolutions introduced by Dr. J. R. Van Kleek, of New York, and adopted.—Transactions for 1865. Vol. 16, p. 57.

†Address of Committee of Arrangements through their Chairman, D. C. C. Cox e. Transactions for 1866. Vol. 17, p. 10.

finally met on the plains of Marathon, after many a hard fought battle, the former regarding himself and army, as captors, said to the latter: "Be judge thyself; what satisfaction dost thou require?" The noble Athenian replied: "Thy friendship," and they swore inviolable fidelity, and were ever after true brothers in arms. Alas, that the nineteenth century has so often to recur to classical heathenism to find its illustrations of genuine magnanimity!

Looking at these facts, am I not warranted in asking if any organization has emerged from our late convulsions with so much dignity? Has it not come forth from the sharp ordeal with those graceful virtues that belong to our higher nature? The world may have its conventional rules of intercourse between man and man—its creed of moral philosophy—its code of honor, its accredited formula of behavior, while it lavishes its praise on the charms of human brotherhood; but it has been left to the American Medical Association to teach practically the intellects of the land one of the most ennobling lessons on the dignity, beauty and glory of refined and civilized life; a lesson that not only hallows the spirit of our professional character, but instructs the physician in those spiritual sentiments which lead to the highest virtues, among which are reckoned Charity and Forgiveness. ¶ Of the one, we are told, that the archangel, who never knew the feeling of hatred, has reason to envy the man who subdues it; while of the other, it is said, that when we practice forgiveness to the man who has pierced our heart, he stands to us in the relation of the sea-worm that perforates the shell of the muscle, which straightway closes the wound with a pearl.

No apology, gentlemen, is necessary for dwelling so long on the moral spirit of this Association. If I had not believed, that a moral sentiment, underlies all-profound thought, all true research, all genuine wisdom; that it is the strength of civilization, the security against those covert forms of heathenishness and brutality that lurk under the imposing hypocrisies of outward splendor, and the ulterior end for which nations and mankind exist; if I had not been assured that our profession rests on this basis, and can rest on no other, I should not have devoted so much time to this subject. Turning from these reflections, so naturally suggested by the circumstances of our present meeting, I am reminded that other points of great practical significance claim our attention.

I almost fear to name to you, gentlemen, the subject I have chosen for a few remarks. So frequently has it been the theme of discussion, that some may be wearied by its repetition. I approach it, too, with much diffidence, because it has been handled by so many abler minds. I allude to the subject of

MEDICAL EDUCATION.

If it is an old topic, and, moreover, somewhat worn, it has the advantage of a deep, vital and permanent interest, from which the want of novelty cannot detract. Furthermore, it is a topic that has recently assumed new aspects. Vast changes have lately occurred, not only in human progress, but in the specific direction which that progress has assumed. Physical science is achieving unprecedented results. The mind of man, liberated from its long but salutary apprenticeship to the external phenomena of the universe, seems to be approaching its maturation, by penetrating into the secrets of matter, evoking its mightiest forces, and subordinating them to the advance of civilization. In all departments of practical science we see a resoluteness of investigation, a constancy of indomitable will, a scope of rational inquiry, that are remarkable. The breadth of this movement embraces all the divisions of human knowledge, and its characteristic features are thoroughness and completeness. If the chemist, the engineer, the natural philosopher, have to adjust themselves to these extraordinary changes; if the inter-relations of the sciences and arts are constantly acting to impel each one of these sciences and arts to wider researches and a fuller mastery of its own legitimate facts, it cannot be expected that medical education will fail to feel the impulses of the age. A profession that does not equal the age in its educational machinery, that is unable or unwilling to represent its modes of thought and its forward tendencies in its demands from those who seek admission to its ranks, ceases to be a profession, because it loses its claims to a scientific character.

The methods of thought now developed among the thinkers of every science, are educated methods. I mean by this, that they observe an orderly routine, follow the established laws of inquiry, never anticipate their own cautious action, never predicate final conclusions until successive steps have justified their emphatic declaration.

With these methods of thought, our modes of investigation, our instruments and agencies, agree, so that the intelligent mind of the day has its counterpart in the appliances it employs to attain its ends. Natural endowments still have their value. Individual skill, personal ingenuity, the keen insight of native genius, yet have their worth. But, nevertheless, a professional man of the present time, much more than ever before, must rely for honorable success on an exact and extended education. This is just as true of medical education, perhaps more true, than of any other form of education. The simplest principles of medical practice, such has been the progress of science, take hold now on a large body of facts; kindred sciences and arts have come to our aid; the way of treating disease is daily becoming more philosophic; our knowledge is better systematized; and hence, while the science of medicine has greater power to educate than at any previous period, the necessity for a physician to be educated, in order to avail himself of the advantages of his profession, is proportionally increased. Yet it must be acknowledged that the proper standard of medical education in this country has not been approximately reached.

Nearly a quarter of a century has elapsed since this Association was organized for specific objects, the chief of which was the elevation of medical education. The deplorable ignorance of many young men who receive the distinction of a diploma, is known to all. The calls for reform have been loud and earnest. We have had investigations, reports, addresses, until the subject has been presented in every variety of phase. The argument has been fully made and as fully accepted: it has been endorsed by the medical journals of the country, by the medical colleges themselves, between which and the profession, no difference of opinion exists as to the theoretical questions involved. Yet, practically, the subject remains just where it was when it first claimed the anxious consideration of the profession in this country, and led to the creation of this body, with a view to organized efforts for a radical change.

I do not allude to this subject, in the hope of adding any new facts, or of bringing forth any arguments more forcible than those contained in your former Transactions. But my purpose is to keep it before the mind of the Association, as a matter of vital importance to every in-

terest in the country. Standards of requirements, varying somewhat in degree, but always deemed moderate, wise and just, have been submitted to this Association, and recommended by its action to the adoption of the medical colleges; and whilst they have seemingly met the approval of all, with perhaps one exception, they have yet failed to obtain the compliance of any. To enforce reformation where so many different and conflicting interests are concerned, is a most difficult and embarassing task. In governments, revolutions are sometimes quick and violent. The dethronement of monarchs, the overthrow of empires, the downfall of nations, the blotting out of statute books which may have been the slow product of ages, may be the *coup d'etat* of a day or an hour. Such, however, is not the case with the laws and usages regulating the modes and forms of education.

The capricious vicissitudes of human fortune which pass by us in such rapid succession, working in some instances the most speedy and salutary changes, are unknown to those arrangements which relate to the propagation of scientific truths. Revolutions of this kind may properly claim the calm and deliberate attention of the leaders of thought, and particularly when they involve the tedious and toilsome work of training the mind for an arduous profession.

Yet, conceding the difficulties of the case, we must confess that twenty-two years of organized effort, directed mainly to one object, and characterized by the diligence, industry and zeal, of a numerous and learned body of men, should have presented some substantial results as the reward of so much valuable thought and untiring labor. Despite the earnest and pleading appeals that have gone from this Association, a strange and fatal neglect exists among our medical colleges, in regard to the highest interest of the profession, viz: the introduction of such modes and the appliances of such tests, in connection with professional education, as shall secure the ends of instruction and disciplinary training. If professional education means anything, it means a specialized form of culture—such a culture as consists in acquiring pertinent facts and precise principles; and, furthermore, the intellectual art of using said facts and principles with a reasonable degree of dexterity and skill. It presupposes the ordinary education of a gentleman; it begins at that point; and, if this be lacking, the specific profes-

sional education is, in a majority of instances, radically vitiated, and so vitiated because few men are competent to receive a specific form of culture, unless they have antecedently had a good general culture. Yet the distinguished Prof. Henry Miller, one of the former Presidents of this Association, and for years a teacher of medicine in one of the first medical schools in the United States, declared, in his official address before this body, in 1860, that he was constrained to say, "Even at this late period, the profession abounds in students and practitioners who are radically deficient in spelling, grammar, etymology, descriptive geography, arithmetic, and, I might add book-keeping, but that they generally apply themselves to the study of this important branch with a diligence that supplies the want of early opportunities." And he adds, "all candid men who have had any experience in medical schools, must confess that the examinations of the *green room* annually reveal a sum of ignorance or of vague and misty perceptions of fundamental medical truth, even in many who are invested with the honors (?) of the Doctorate, which is truly amazing. For myself, I can solemnly declare, that the most mournful and humiliating passages in my professional life, have been these annually recurring examinations, in which such scanty harvests have been reaped as the reward of a winter's faithful toil."

Think for a moment what the idea of an educated physician embraces, and then place it in antithesis to the statement made by Dr. Miller. Apart from the preliminary culture that initiates him into the world of knowledge, and secures him some tolerable command of his mental faculties, a physician is expected to understand the human body, its complicated structure, its nervous and muscular offices, its various organs and their interactions on one another, its laws of health and disease, its relations to soil and climate, and its susceptibilities to the influence of mind and civilization. Add to these the remedial agents he employs, the use of those resources which his art has provided, and his unceasing need for an acquaintance with chemistry, and its co-related sciences. What is equally essential, a physician's habit of thought must be estimated—and what a scope this includes; what a compass of calm but intense insight, of philosophic clearness, of studious induction! When I think of the single faculty of judgment, of the infinite

pains-taking necessary for its cultivation; of the coördinate functions of association, suggestion and comparison that attend its action; of the vast number of constituent qualities that combine to form a truthful, reliable and trustworthy judgment; and when I think that this is the master-power of a physician, and can only be acquired as the latest fruit of broad and comprehensive generalizations, and as such is mainly due to early habits of patient and assiduous study under the best preceptors, I am unable to imagine any temerity more rash, any arrogance more supercilious, any ignorance so fatal, as those which can rush unprepared into the responsible duties of the profession of medicine. I know of no man whose professional education, as to stringency of obligation and sanctity of motive, can rest upon truthfulness of heart with such weighty considerations. I know of no man on whose intellectual and educational fitness for his position, so much depends, either for weal or for woe. Without the least exaggeration, it may be affirmed, that there is not a single attribute of mind or body which is not susceptible, in a physician of such education, as to enhance his professional worth to himself and the community. The proper development of his senses, the eye that can see accurately, the ear that can discriminate among the faintest sounds, the touch that responds to the slightest impression; the management of his own nervous system, so that it can sustain his intellect when most severely taxed; the exactness of memory in the retention of impressions; the almost artistic vividness necessary for precise delineations; these functions of observation, reflection and analysis, as fundamental to higher processes of mind, are capable of an extraordinary degree of education, and hence require the most mature and systematic training to give them a right direction.

If this ideal of medical education is not overdrawn, it is not surprising that our Association has shown such a deep sensibility to the current deficiencies of professional training.

The full and able report of 1849, by your Committee on Medical Education, composed of men of the highest distinction in our ranks, holds this language: "We regret that candor and justice compel us to admit, that the most deplorable ignorance and unfitness for the responsible duties of a physician are often exhibited by those who hold the diploma, and who are thus endorsed

as being qualified and competent. This fact is so notorious that it would be a waste of time to cite instances in support of it." This is the language of the committee, and numerous other extracts equally authoritative and decisive could be furnished from your own Transactions, in confirmation of the fact under notice; nor has there yet been any substantial advance towards correcting the evil. The practical questions are then, with whom lies the fault and what is the remedy?

The first and, undoubtedly, the fundamental error in our system, is one already adverted to: a defective preliminary education. Nearly all writers on this subject have tried to rest the blame upon the private preceptor, into whose office the student of medicine is first received. Contending that it is his duty to ascertain the fitness of his preparatory education to qualify the student for the study of medicine, they put upon the preceptor the onus of deciding this point. I cannot see the justness of this demand, nor do I think it safe to place the responsibility upon this party. In the first place the colleges have no standard for preliminary education, and this the preceptor knows. And in the next place, the preceptor himself may be one of those spoken of by Professor Miller, and hence, incompetent to decide even on acquirements in spelling, grammar, etc., to say nothing of the ill-grace he would show in closing his office against a young aspirant on the ground of deficiencies, which in his own case the Medical Colleges have overlooked. Nor is the student to blame, since he cannot see the necessity for a preparatory culture, while, perchance, he has made it a matter of calculation on mere grounds of business. If he enters on the study of medicine as a trade, (as undoubtedly many do,) he wishes to get his profession with the least possible outlay of labor, time and money; so that viewing it from his standpoint, if the diploma can be obtained on the basis of an imperfect scholastic knowledge, he justifies himself in his neglect. Granting that the private preceptor should inquire into this matter, (and it is certainly better that he should do so,) yet through the imperfection of his own standard or through insensible favoritism, he may accord to the student qualifications not possessed. But whatever may be the judgment of the preceptor, however well or ill his initial duty may have been discharged, the responsibility of the medical college for his matriculation remains unaffected. The power is in

its hands to arrest the evil in its incipiency, and it is precisely at this point, that the power which has been lodged in its possession as a chartered right, and which constitutes it the safeguard of the profession, should be firmly and emphatically asserted. Not only is a medical college bound to give instruction and training, but it is equally bound to see that its matriculants are fit subjects for its instruction and training.

The shipping merchant looks to the sea-worthiness of his ship as well as to the skill of the captain, to whom he entrusts his cargo; and the farmer examines the soil as anxiously as the seed, if he has any pretensions to the science of agriculture. But, in many instances, our colleges ignore the necessity for a parallel inquiry into the capacity of young men to receive the benefit of their teaching. Foundation or no foundation—they are the architects of a superstructure; corner-stone or not, they are intent on towering stories, pilasters, architrave and dome. Nor indeed need the rain descend, nor the floods come, nor the winds blow and beat upon that house until it fall; nature may spare the punishment of its sandy basis—it falls by its own nothingness.

To see this subject in a full light, bear with me while I sketch a medical student's life in this country. There are many exceptions to what I shall say, but while this is gladly admitted, the tendencies of our present mode of education may be faithfully represented. I honor these exceptions in students who prepare themselves for the study of medicine, and in those colleges that have due respect to the character of the profession in the conferment of the doctorate. But in the ratio that these exceptions are distinctly marked, the system itself stands condemned. When a young man has determined to study medicine, he applies to a physician for admission into his office, or not infrequently for the loan of his books, preferring to study at home in order to save expense. The preceptor, thus selected, is generally the friend and physician of the applicant's family, and receives him, in most instances, without hesitation and without inquiry. A work on anatomy is put in the student's hands, and perchance a few plates or bones superadded, which, when left to himself, he studies and understands to but little profit. Engaged in private practice, often limited in means, struggling for daily bread, the preceptor has frequently neither the time nor the appli-

ances, (if, indeed, he has the professional education,) to render that assistance to his student which his crude intelligence and unformed habits demand. The art of the teacher, the rarest and noblest of arts, which, combining in itself the endowments of nature and the acquirements of knowledge and experience—this directing and inspiring art is denied the student at that period, when his age and impressibility most urgently require its presence. Ordinarily, the preceptor has no ambition to be a teacher; seldom has he pupils sufficient to remunerate his labor or enlist his feelings; while the sense of responsibility is materially lessened by the fact, that the student will pass from his hands to the oversight of those whose business obliges them to superintend his preparation for active life. The more fortunate students have, perhaps, the aid of lectures and demonstrations in addition to instruction and text examinations, but even in these instances, the want of method and of systematic training greatly abridges the theoretic benefit.

A year or a portion of a year passed in this way, whatever the progress, or whether any progress at all, the student then enters a medical college. Here he is expected to receive "two full courses of lectures," which usually occupy the succeeding winters, though in some instances attendance upon a winter and a summer course immediately following, will entitle him to an examination. No conditions are imposed upon him by the college. No examination is had into his capacity to profit by professional instruction. If he matriculates and purchases the Professor's tickets, it is enough. Any man can enter a medical college in this country, without having gone through even the jest or mockery of spending a year in a private preceptor's office, and by simply paying the fees required, which, in addition to being, at times, ridiculously small, may often be conveniently arranged by promissory notes to be paid out of his future professional income.

The matriculation and purchase of the Professors' tickets, constitute him a member of the class. No rules compel him to attend the lectures; no means are employed to ascertain whether he does so or not. If he choose, he may submit to daily examinations, or he may avoid them altogether. Should he leave the lectures and return home, it does not impair his right to be a candidate for graduation at the next term. The exercises of the college, which

he now has the privilege of attending, if he sees proper, generally continue about sixteen weeks, sometimes less, in a few instances more. From six to twelve Professors occupy the term, more frequently seven or eight, each of whom delivers from three to six lectures a week. Little time is left the student, if he attends these lectures. Ample provision is in most instances made for dissection, and nominally some time is demanded, by a few of the colleges, for its prosecution during the second term, but any close and earnest attention to it is impossible, unless other duties, deemed by the student of equal importance, are neglected; and hence, few acquire an intimate and practical knowledge of anatomy during their pupilage. In some of the colleges he may attend hospital clinics two or three times a week or daily. Owing, however, to his very limited time at college, and the multitude of other duties crowded into this brief period, together with the rare opportunities afforded for a personal and satisfactory examination of cases by the student, this very important auxiliary to the study of medicine is used to but little purpose, in view of the large amount of materials for clinical instruction which many of the colleges control.

Thus with lectures through the day; private quiz-clubs, lager beer saloons and theatre at night, the student consumes his first term, which, though short enough, he is apt to desert several weeks, in advance of its close for the hospitable lounges and easy tasks of his early preceptor. Here six or eight months are spent much like the first period of pupilage, except, as he is improved by attendance on the college lectures. At the end of this time, he returns to college to complete his second or graduation term, which consists in the repetition of the same routine through which he had previously passed. His recollection of his former self-indulgence, his consciousness of his own defects, and his sharpened sense of lost opportunities, now call for semi-professional treatment. Ready to his hand, standing on watchful tiptoe for a call, one of those experts called *crammers*, who hang around the skirts of medical colleges, and attain celebrity in the practice of educational quackery, seizes on this unfledged Moses and gives him green spectacles, "with silver rims and shagreen cases" by the gross, through whose shining glass, he may see all the wonders and mysteries of an examination in the *green-room!* Here, with the aid of conspectuses, vade mecums, convenient

analyses, compendiums, and such like books, he is taught all the short roads and by-paths through which he may obtain the degree without understanding anything of the great fundamental truths and principles of the science of medicine. With these easy and convenient appliances, the cheap terms and moderate demands of the colleges before alluded to, added to the very liberal "beneficiary" system lately coming into vogue, used for the double purpose of obtaining State and municipal aid and swelling catalogues, it is but a short step from the plow-handle to the diploma. I do not desire to depreciate the class of books alluded to, they doubtless have their uses, though they are certainly not such as should constitute the chief reliance of the student.

Make the best possible supposition; admit that the student had a sufficient preliminary education; grant that he has been diligent, constant, energetic; yet no one can imagine that this student is learned enough in this brief period to entitle him to the degree of doctor of medicine in any other highly civilized country in the world. But who knows what he is or what he has done? He has submitted or not to examinations; has attended lectures and hospitals or not; has engaged in dissections or not; has been a spend-thrift of time or not—just as it suited his taste and temper. Despite of all, he is allowed to offer himself for the honors of a degree and to undergo perhaps the first and only examination to which he has ever been subjected. The exceeding rareness of such an event, one would venture to surmise, would clothe it with dignity, if not indeed, with majesty. Previous to this, a few enquiries are put to him, the first of which is as to whether he is twenty-one years of age. If he is only two or three years short of this, many consider it no valid reason to forego the examination. The next requirement is, that he shall have been engaged for at least three years in the study of medicine, including his private study with a respectable physician, and his attendance upon lectures. If put at all, the question as to this requisite, is often a matter of form and answered negatively, which is not likely, would hardly debar the student from the privilege of an examination. It is by no means an uncommon circumstance for students to begin the study of medicine by attendance on a winter's course of lectures, without ever having looked into a medical book, and then graduate at the succeeding term.

The next requisite is, that he shall have attended two full courses of lectures, the last one being in the school in which he proposes to graduate. Answer and proof are in the production of the tickets. He may have attended two full courses—attended one lecture a week or none at all—and the professor be none the wiser. Tickets reply to the question. No check has been instituted, no resource against imposition, no roll calls, no cards, no weekly or monthly registry of names, no witness of any sort, as to attendance upon lectures, or even as to his presence at the college since the purchase of the tickets. Another step follows—"an acceptable thesis in the handwriting of the candidate," must be presented. He is not examined upon it; whether it is the production of his own brain or not, is not ascertained; the hand-writing is conclusive proof as to authorship, and the genuineness of this, in most instances perhaps, taken for granted. Proper testimonials of a good moral character, form the final requisition. So far as my information extends, this requisite finds a place only in published announcements or in the closed pages of charters and by-laws, being seldom demanded and still more rarely furnished. Professors have been known to visit city prisons to become bondsmen for students who have violated the common decencies of life, and within a few days thereafter affix their names to the diplomas of these men.

Such are the nominal requisites preliminary to an examination for a degree in most of our colleges. Few, simple and reasonable enough certainly, yet we have reason for believing that frequently they are not insisted on, (the one touching the tickets excepted,) or if urged, that they may be answered in the negative, and yet the candidate not refused an examination. The theory of this examination is founded on the idea of three years of study. But if the time is fairly measured, no one can suppose that more than one year is judiciously employed, or what would be the equivalent of one year spent in a first-class school under competent masters.

The student now goes before the faculty, for his final examination. All require that he shall stand "a satisfactory examination," though the meaning of these words is very different in different schools, as well as the modes of examination. In some instances one hour is considered sufficient for the purpose, allowing to each professor some eight or more minutes. In other instances, when

these oral examinations are made separately, perhaps as much as thirty or forty minutes may be consumed by the professor in forming his estimate of the qualifications of the candidate, with whom he is there, perhaps for the first time in his life, brought into close contact, and with whose moral, intellectual and educational fitness he has been, up to that moment, a total stranger, often commencing his examination by an enquiry as to the name. Although some of the colleges are more rigid than others, yet it so happens that he must be signalized by dullness and stupidity if he fails to obtain his diploma at the end of the second term from the best of them.

The student is now a physician. Can any one deny that the honor of the doctorate has been too cheaply bought? Give such a man talents or even genius; give him the acquiring virtues that concentrate, intensify and inspire intellectual exertion; exhaust means and agencies in his behalf, and what are the probabilities that he is furnished for his work, trained for its toils, fortified for its trials, and imbued with its formative spirit? Is he ready for "the high endeavor and glad success?" A plea in justification is offered in the demand for doctors. But are these men doctors, or likely to become doctors in any other sense than a diploma constitutes a doctor? If there did exist a demand for ignorance and incapacity, our plain duty would be to refuse such demand. The argument was always weak; it is now pitiable. It may have some force as to certain trades, but the status of a profession has always been self-determined; its title to confidence and respect is the product of its own mind; and whenever it primarily looks to the outer world for the assurance of its strength and the measure of its renown, it has extinguished the instinct of its life and let itself down to the sordid level of the market-place.

Moreover, it is a libel on the powers of nature to suppose, that the world needs indifferent doctors, when good ones cannot be procured. The quality of good, as professionally applied to physicians, can only be ascertained through its conventional meaning—its relation to the highest standard approved by the civilized world. Comparisons are doubtless odious, but a sound judgment is impossible without them. If then the medical colleges of this country, forming so important an element in its social structure, identified with a nation that has achieved magnificent results in art, science and general civilization,

and throbbed its awakening life far beyond its continental limits; if these Institutions, charged with the honor and usefulness of a calling that belongs to the first of the accredited sciences, claim the right to bestow the prerogatives of the profession upon men who would be deemed, in most other civilized countries, unworthy of the position of subordinates in a hospital, it is not unreasonable that those who have a common interest with them and are painfully observant of those flagrant abuses, should give a just expression to their disapprobation, should enforce that expression from the deep impulses of mortification, should kindle its words, if need be, with the fires of impassioned jealousy? Let none imagine that the remonstrance is other than the dictate of truth and justice; made, not with the desire to wound or irritate; but with the hope of awakening convictions as to existing abuses and of exciting an enlightened effort for their removal. Every right-minded man likes to praise much more than to blame; but when we see the irregular and imperfect system of training, under which the medical student is educated in this country, and witness the alarming ease with which the diploma may be obtained, with the most trifling qualifications, and compare these with the established systems and rigid demands of the European schools, we cannot help feeling that the usefulness of our profession and the interests of society are seriously hazarded, and it surely becomes us to forget ourselves and all individual interests in an effort to correct the evil.

Without doubt we have master-minds in our profession in this country engaged in teaching. Tried by any standard which the older civilization of Europe may set up, many of the professors are men entitled to fame and just distinction, but are such men the natural outgrowth of our system of education or in despite of them? One of the peculiarities of genius is its self-creating force, by which it binds circumstances to its will, shapes them to its purpose and stamps them with its image. The real test of systems of education is in the average intellect they call into healthful activity and direct to great ends. Such exceptional men as we have spoken of—men, who like streaks in the early dawn, shine forth from the darkness out of which they spring—possess that sure instinct of greatness which the paucity of early helps cannot restrain. Besides, many of these men obtain their highest

training by visiting the schools of Europe. Who ever heard of the reverse being true? Who ever heard of a gentleman leaving the schools of Paris or London for a more thorough education in America? If then we have the rare felicity of admiring these men—these great lights which rise in the face of our present system, a better system would multiply their number, and what is equally desirable, or, even more to be coveted, it would furnish us a vast body of thoroughly enlightened and intelligent physicians—physicians for the million, that, like the table-lands of our continent, would spread their broad space for our wonder and delight.

Advanced thinkers, discoverers of new truths, originating intellects, these we must have; but, besides them we must have medium capacity that may appropriate their thoughts, assimilate their influence, and diffuse the advantages of their superior culture. Perhaps nineteen-twentieths or more of the practical duties of the profession are discharged by this class of intellects. Nor can this end be attained without a liberal method of general education. Our men of genius are largely lost to the profession. simply for the reason that hundreds of physicians are positively incompetent to appreciate them and their immense services. And this humiliating state of things cannot be changed until we educate our youth to a higher recognition of themselves, and thereby place them in closer sympathy with the gifted and learned of our profession.

To see how far we are behind the age, let us now glance at medical education abroad. I can tell you nothing on this subject, which is not familiar to you all, and refer to it only for the purpose of comparison. Though the systems in Europe differ somewhat in details, they yet have a marked uniformity as to the measure of attainments necessary for a degree. All these systems have more or less the cardinal idea of a professional education. which is two-fold; first, the preliminary culture requisite to form an intelligent gentleman; and, secondly, the specific culture branching out from that and directed to a definite object. Acting upon that high sense of intellectual truth, which centuries of local civilization have perfected, they demand that one shall be an educated man before he becomes a physician. The French nation, perhaps, presents a fair type of the educational demands of the European schools. Before a student can matricu-

late in a medical University of France, he must present his diploma of "Bachelor of Letters," and previous to graduation, he must show his diploma of "Bachelor of Sciences," equal to the degree of A. B. in the colleges of this country. Nor are the requirements as to age and moral character dead letters, for they are met by well authenticated certificates or proofs. No man can matriculate who is under the required age, or who has been convicted of any crime. No favoritism and no expediency vary these rules. They are fixed and inflexible. The order of procedure compels the student to deposit his diploma of "Bachelor of Letters," the written consent of his parents, the certificates of his birth and character, with the secretary of the faculty, before his name can be enrolled, and then a certificate of registration ("carte d'inscription") is given. This inscription he renews quarterly, until he has registered sixteen times, thus requiring sixteen courses of lectures and four full years in the University. He cannot enter the college before he is eighteen years of age, and consequently cannot graduate before he has reached the age of twenty-two. In Austria, and perhaps some other countries, his pupilage may last from five to seven years before he offers for final examination. Attendance upon lectures does not mean the purchase of tickets, (in most European schools the professors are paid by Government,) but it means actual attention, hard study and satisfactory progress, as tested by repeated examinations. Anatomical dissections, practical pharmacy, hospital attendance, are compulsory.

In France, the student at the end of the third year, must produce his diploma of "Bachelor of Sciences," besides being examined on the studies required for that year. Different courses are assigned to different years, the student being examined in July of the first, second and third years, on the studies embraced in those years. Should he fail on either of these examinations, he can have a rehearing three months after, when, if he fails again, he cannot take out a new inscription until another year has passed. From the eighth quarterly inscription to the sixteenth, embracing a period of two years, he is required to attend the clinics of the hospitals, the reason of the rule being that two years of college instruction are deemed necessary to prepare him for clinical instruction. Previous to graduation, five rigid examinations are had, and thorough proficiency required. The last one is

entirely practical. Two medical or surgical cases are selected by the professor, and the candidate is expected, on the spot, to give the correct diagnosis, prognosis and treatment, in the presence of a number of the faculty. The thesis, which must be printed, and copies placed in the library of the faculty, is submitted to the closest scrutiny, and its author required in public, viva voce discussions, to defend it against all assailants. Additional to this, he is tested on questions propounded by the Council Royal. To avoid all collusion or favoritism, these questions are placed in an urn and drawn by lot, so that every possible safe-guard is adopted to secure thoroughness of preparation before a diploma is given.

Not only is great emphasis laid on a collegiate education as preliminary to medical study, but the branches taught in a medical course are much more numerous than in this country. The curriculum in most of our schools includes only eight or ten departments, while in Europe many of the Institutions embrace nearly three times that number. Some of the colleges have as many as fifty or sixty professors and assistant professors. In the medical department of the University of Paris, there are twenty-eight professors and twenty-nine assistant professors, besides a dean, while in the University of Berlin there are twenty-eight professors and thirty-eight assistant professors. Besides this numerical strength, a professor in one of these Universities or colleges, is a thoroughly educated gentleman, a man of general science, who, by virtue of large culture, has broad sympathies and is thereby able to dignify and adorn his own specialty by means of resources drawn from the wide domains of knowledge and thought. The selection of men for these positions is conducted with the utmost care. None are chosen except through competitive examinations, nor until the extent of their acquirements, the scope of their talents, and their aptitude, as teachers, have been most unequivocally demonstrated. I need not detail how this is managed with our countrymen; the petty diplomacy, the artful manœuvering, the agency of politicians, the conciliations of sectional prejudices, the desire to advance personal interests, which belong to the machinery of electing professors. No doubt this machinery will now be enlarged to take in military services and sacrifices, and that too in the face of the fact, that professors are found in this land, who could not matriculate as students of

medicine in any of the respectable European Universities.

Happily for the hopes of reform, our wisest professors have been the most sensible of these evils and most sensitive to the immediate and urgent need for their removal. But a few weeks since I received a letter from a gentleman, who is one of the most distinguished surgeons of the age; who has been engaged during the greater portion of a long and brilliant life in teaching; who has held professorships, at different times, in several of the foremost colleges in the Union, and who now occupies a chair in a school which does honor to the profession through its forward tendencies on the subject of medical education—which contains the following most gloomy and disheartening allusion to this subject: "The future holds out no promise of amendment. We shall go on from bad to worse until the people can stand it no longer, and then we may hope to be able to effect some reform by our efforts as a great National Association. The medical schools are getting worse every year, belowering the standard of education and opening their doors more widely by the reduction of their fees. The time is near at hand when honorable men will cease to take any interest in medical teaching."

If our foremost men in the colleges could accomplish this great revolution, it would soon be accomplished. But at every step, they are crippled by a power which they cannot persuade nor coërce, and which they can neither afford to respect nor despise. No one can deny that we have colleges in this country, organized in fact for the sole purpose of advancing the local reputations of the professors, which have not the great interests of the profession at heart, but which have all the chartered rights of our first class colleges. If unsupported by these, our best schools exact of students the prerequisites for an honorable graduation, this will only end in augmenting the evil, since their patronage would forsake them and fly to schools less stringent.

Your action in Baltimore, May, 1866, under a resolution introduced by Professor Davis, of Chicago, secured a convention of representatives from about eighteen colleges, which assembled May, 1867, in Cincinnati. The plan adopted by them, if accepted and executed by the colleges, would effect the greatest results. It was conceived in the spirit of moderation and with a full con-

sciousness of the difficulties in the way of reform. The report was received by the Association and published in your Transactions, but it will serve no purpose beyond evincing the wisdom and public spirit of these medical teachers, and your own appreciation thereof, unless new measures are devised to render it effective.

By the very act of your creation, you stand committed to a reform in medical colleges, which, in your own language, shall establish "a uniform and elevated standard of requirements for the degree of M.D." You have already done much good in some directions, but so far as your original object is concerned, you still owe to the profession and to society, this unredeemed pledge. If the fulfillment of this aim was worthy the labor already bestowed, and which, though unavailing, has exemplified your cherished purpose, it deserves yet another effort. The sphere of your action has been wide; the sphere of your power has been narrow and limited to the means of advice and recommendation.

The plan of action you have adopted. that of endeavoring to induce forty or fifty medical colleges, with conflicting interests, to agree voluntarily upon a "uniform and elevated standard of requirements for the degree ot M.D.," and adopt it in good faith, has become almost a Utopian idea; a forlorn hope. Though urged with all the force that truth could impart and enforced with all the appealing earnestness that the gravity of the subject could inspire, yet your views and wishes have not impressed themselves on the schools to such an extent, as to change their course of action. It seems to me that all hope of reform through this means must be abandoned. Nor can we expect to reach the end proposed by measures of State legislation. The obstacles here are too palpable to need enumeration. They are many; and they are insurmountable. Almost any body of medical men may obtain a charter for a medical college in most of the States of this Union, with pretty much such regulations and privileges as they may agree upon among themselves and ask for.

I despair, therefore, of seeing this Association attain its object through any of the agencies heretofore employed. If, however, this great work *ought* to be done, it *can* be done. I believe it is within the reach of the power of this Association. But I can see no mode, by which it can be accomplished, except through

FEDERAL LEGISLATION.

Time does not permit me to enter into details, if, indeed, I felt myself competent to discharge such a task. I shall, therefore, only make a few brief, crude and imperfect suggestions, in the hope that they may engage the earnest thoughts of those more competent to assist them to a practical and finished direction.

I would advise that we appoint a committee of our wisest and best men to digest a plan for one or more NATIONAL MEDICAL SCHOOLS, and to memorialize Congress in behalf of the enterprise. Let the plan embrace, as a basis, the features presented by the Cincinnati Convention of Teachers; let these schools or Universities confer such distinctions and privileges, as will be proportionate to the superiority they demand, and such as will make the attainment of their diploma an object to the ambition of those who engage in the study of medicine; let the chairs be open to all aspirants, and the appointment or election of professors so guarded as to secure the very highest talents, the most profound learning, with the most fully demonstrated capacity for teaching. Make the salaries of the professors large, and not to depend upon the number of students; and, let the Federal Government assume a proper share of the expenses incurred.

The number of these schools may be multiplied as experience may demonstrate their superiority and necessity. Our present medical schools, and such as hereafter obtain their charters from State Governments, may adopt their own regulations, and such as do not conform to the National standard, will either become tributaries or preparatory schools to the National Universities, or dwindle into merited neglect.

I am persuaded, that such assistance on the part of Congress, can be obtained. I think that a committee could demonstrate that the vast amount of labor and money expended annually for the public good, a portion could not better be bestowed for the welfare of humanity and the interests of American civilization, than in creating and upholding one or more Universities which will perfect the object for which this Association was organized. Such reforms have not been elsewhere effected, except through governmental interposition, and our own experience has amply shown that it is vain for us to hope for them through any other means.

I am perfectly aware that any plan looking to the Gen-

eral Government for sanction and support has its embarrassments, aud that it will be opposed on the ground of incompatibility with republican institutions, but I do not doubt that all objections can be fully answered. The most moderate view taken of the offices of Government, specifies PROTECTION as its main end, and where, if not here, is protection demanded? Utilitarianism proclaims its conquering motto in the words: "the greatest good to the greatest number;" and where, if not here, has the motto a consummate application. The recent changes in political science, as well as practical revolutions in the institutions and relations of the age, show clearly enough that whether for good or ill, governments are becoming more direct representatives of the prevailing public opinion, and are acting more immediately from the popular heart; tell me how this Government could more effectually permeate our homes, our tenderest sentiments, our truest earthly well-being, than by lending its mighty aid to a measure so fraught with patriotic philanthrophy? No profession has a sublimer human ideal than ours; none comes closer to the daily evolutions of Providence; none touches the individual and social happiness of men at so many points; and yet, standing in this high relation, it is almost alone in the facility, with which ignorance may enter and work its mischief. If a student of law receives license to practice his profession, his blunders in the conduct of his cases do not often affect the happiness or well-being of a family; and besides, his errors may be corrected; his case may be reärgued; and withal, he belongs to a profession which compels a man to show what are his merits, to demonstrate to the court, the bar, the jury and the world, his precise abilities, and allows him to win no success not based on professional capacity. But when a young man obtains his diploma from a medical college, he has passed through the only trial the law demands, and has obtained that which society recognizes as the test of merit. Next to the minister of the gospel, the physician appeals to the sentiments of the public mind, and particularly to those sympathies which are least inclined to make close examinations of pretensions. The atmosphere in which he moves is unfavorable to keen criticism; the circumstances of anxiety and often of sorrow, as well as the feeling of dependence under which his professional skill is sought, indispose families to scrutinize his ability, and he is usually accepted

with implicit reliance. Outside of the medical colleges, what safeguard protects a commnnity from impositions of ignorance, stupidity and recklessness in our profession? You all know that society has no redress at the hands of physicians themselves, since their lips are sealed as to censuring comments on the practice of their professional brethren. Two physicians may receive diplomas from the same or different colleges, one may be highly intelligent, the other grossly ignorant. Yet they stand before the community as equally learned and equally authoritative. Through a pleasing and arttul address the ignorant brother may outstrip his more accomplished rival in acquiring the confidence of the community in which they live. The latter may daily witness the gross and even fatal blunders of the former, yet, in view of the creed of common courtesy, recognized by general society, as well as the code of ethics established by yourselves, nothing would be more unwise than for him to attempt the exposure of his weak and ignorant brother.'

There is then, gentlemen, no safeguard but in a thorough preparation of those who seek to be clothed with the doctorate. To this end you are pledged, and from this position you cannot recede without discredit to yourselves and certain degradation to that calling of whose interests you are the highest representatives—the recognized and rightful guardians. A profession like ours, that is invested with a power of unequaled beneficence, that disdains all mystery, all prestige of authority and all superstitious veneration for traditional dogmas; that asks for confidence on the sure basis of scientific knowledge, appropriates no discovery to selfish aggrandizement, holds its resources as the gift of heaven, open to the good of all mankind, and labors to imitate Him, who, nearly nineteen centuries ago, healed the infirmities of the multitude that awaited on His ministry of love and wisdom; such a profession should never falter in giving heed to its own instincts, never waver in strenuous and persistent exertions to elevate still higher its practical ideal, and never abate those heroic convictions which are at once the proof of its high vocation, the credentials of its claims on public respect, and the pledges of its sure success.

ART. II.—DISCOVERY OF A NEW ANATOMICAL FEATURE IN HUMAN BLOOD CORPUSCLES. By J. W. FREER, M.D., Professor of Physiology and Microscopic Anatomy, Rush Medical College. Article No. 1.

In the Chicago Medical Journal of May 15, 1868, Vol. XXV., No. 10, in a brief, hastily written article, I announced that I had, as I believed, discovered that human blood corpuscles "are not, as heretofore supposed, simply bi-concave disks; but, on the contrary, there may be seen, (by the use of Wale's Illuminator,) a nipple-like eminence in the center of the concavity of each well-formed disc. This papillary eminence is about 1-10,000 (one ten thousandth) of an inch in diameter at its base. That it is a true anatomical form, and not a change incidental to dessication, etc., is shown by its appearance at the instant of withdrawal of any given specimen, while the corpuscles are still plump and smooth in all other respects."

Continued investigation on this important subject has served only to confirm the announcement then made; and having had the opportunity of exhibiting corpuscles as herein described, to several eminent men of acknowledged scientific ability, and having received their opinion in corroboration of my own, I propose to set forth in this paper the views heretofore entertained upon this subject, and in contradistinction present my own more fully, illustrated by accompanying diagrams, which were drawn by an artist who had never before seen blood corpuscles, and, consequently, to be taken as unprejudiced testimony.

Among physiologists and microscopic anatomists there has been but one generally expressed opinion as set forth in standard works, illustrated and otherwise; *to-wit*, that the human blood corpuscle is non-nucleated.

It may appear incautious, and even rash, to array one's self against evidence so weighty, but my convictions have ripened under careful and persistent investigation, and I deem the announcement timely and worthy of earnest attention.

It may be superfluous to quote the opinions of authors with whom nearly all are familiar, but for a concise presentation of the subject I deem it advisable.

Todd and Bowman, in treating "of the structure of the red corpuscle" say: "The structure of the red corpuscle of most of the vertebrata may be readily demonstrated

in the reptilia—that of the frog, for instance. It is distinctly a nucleated cell—consisting of a delicate cell membrane, within which is a granular nucleus, which may be rendered more distinctly granular by acetic acid. The nucleus is globular, and much smaller than the cell, and the interval between the inner surface of the latter and the outer surface of the former is filled by fluid which holds the coloring matter in solution. Corpuscles of this kind floated in pure water become distended by the endosmosis of it, burst, and give exit to their nuclei, while the shreds of the cell-membrane are scattered in the fluid."

"It cannot be shown, satisfactorily, that the bi-concave, circular corpuscle of human blood and of that of mammalia is of the same structure as this, because it cannot be demonstrated to consist of cell and nucleus. If it be as the blood-corpuscles of birds, reptiles and fishes undoubtedly are, a neucleated cell, the obscurity of its nucleus is probably due to one of two causes; either it is so large as accurately to fill the cell, leaving no space between the outer surface of the one and the inner surface of the other, or it is so extremely minute as completely to elude our means of observation."

"Mr. Wharton Jones supposes that the mammalian red corpuscle is a nucleus, the cell of which has existed only in the earlier stages of development. Kölliker, on the other hand, affirms that the nucleus disappears while the cell wall is persistent. All that microscopic examination with the highest powers and the best instruments shows respecting the structure of this corpuscle is, that it consists of a delicate membrane, enclosing a semi-fluid material, impregnated with the proper coloring matter of the blood; and that this structure may truly be assigned to it is amply proved, by the change of form which it undergoes by the endosmosis of pure water, which will cause it to burst, and evacuate its contents, consisting of nothing more than some minute granules, none of which can be compared to a nucleus. So far as microscopic analysis would enable us to decide this question, we should be disposed to declare in favor of Mr. Jones' view; but it seems greatly opposed by two facts; first, that in the corpuscle of the lower vertebrata, the coloring matter is contained between the nucleus and the cell-wall, whereas, in the mammalian corpuscle it would be contained in the nucleus; and, secondly, that this peculiarity of structure

is limited to one class of vertebrate animals. It receives support, however, from observing the several steps of the development, for the corpuscle exhibits a stage in which a nucleus is visible, (the stage of colored, nucleated cell,) and this nucleus, in the very large corpuscles of the elephant, and likewise in the very small corpuscle of the goat, exhibits a strict correspondence in size with the perfectly formed blood-corpuscles. But here, again, we notice the difficulty above referred to, that in this stage of nucleated cell, the color is found between the cell and the nucleus. It seems to us that further research is required, in order to determine the exact homology of the mammalian red corpuscle.

Mueller says: "The blood globules, both of the human and other mammiferæ ordinarily do not present the appearance of being nucleated, notwithstanding the generality of the presence of a nucleus in other classes render it probable that it also exists here. I believe, even, that by means of certain light I have sometimes been able to discover it in man. On treating human blood with dilute acetic acid, the corpuscles suddenly disappear, and nothing remains but a few small granules, in regard to which one is in doubt as to whether they are or are not the nuclei of the globules."

Kölliker, in treating of the blood, says: "The red blood-globules, more minutely examined, present the following characters:

Their form is usually that of a bi-concave or plane, orbicular disc, with rounded borders, and consequently, they present a different aspect to the observer, according as the surface or borders are turned towards him. In the former case they are pale-yellow, orbicular corpuscles, in which, according to the focussing of the microscopes, the slight central depression which always exists, is indicated, sometimes by an opaque spot in the centre, the latter appearance admitting of being confounded with a *nucleus*. * * * * * The blood-corpuscle is *constituted* of a very delicate, but nevertheless tolerably firm, and at the same time, elastic, colorless cell-membrane, composed of a protein substance closely allied to *fibrin*, and of colored viscid contents formed of *globulin* and hæmatin, which, in the adult, present no trace of morphological particles or granules, or of a *cell-nucleus:* they are, consequently, vesicles, whence the name 'blood-cells' is to be preferred."

Longet says: "with man and other mammiferous adults

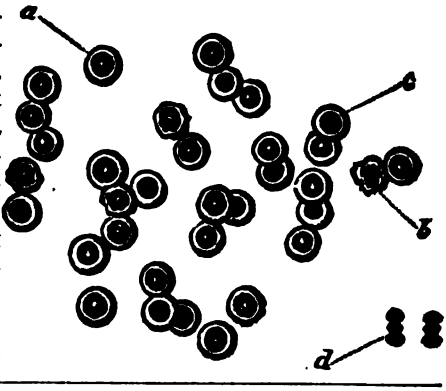
the blood globules appear to be deprived of nuclei. There is not even an exception in the family camelidæ, which, by the form of their globules, approach to those in which the presence of nuclei is not doubtful. That which has been taken for a nucleus is but the thin, central part of the disc. This remark, already made by Hodgkin and Lister, has been confirmed by Henlé, Donné, Wharton Jones, etc., notwithstanding various micrographers admit that sometimes among the ordinary globules without nuclei one meets with those that appear nucleated. Such, at least, is the result of the observations made by Wharton Jones, Schultz, Nasse and Busk, with man and other mammifera.

As all investigators are so nearly in harmony on the subject of the anatomy of these organic forms, the methods of observation having been uniformly the same, it is deemed unnecessary to make further quotations.

In presenting my own views in contradistinction to the foregoing, I wish to call especial attention to my method of investigation. Heretofore all examinations of blood corpuscles have been made by transmitted light, from which we might anticipate, *a priori*, that, with instruments of the same degree of perfection, similar results would be obtained. On the contrary, all of the research upon which my present convictions are based, has been prosecuted by the use of reflected light; the object resting upon a polished jet slide.*

The accompanying diagrams set forth faithfully the appearance made manifest by this method when properly pursued.

DIAGRAM I.—*a*, represents the perfect human blood corpuscle. It will be seen that the center presents a slight elevation, surrounded by an annular depression, while the circumference of the disc is, comparatively, thick, smooth and rounded.



b, represents a disc

*NOTE.—Those who wish to repeat these observations, by means of Wale's Illuminator, will find it indispensable that the object-glass be

with serrated and shriveled margin, with a perfect central elevation remaining.

c, a corpuscle without the central elevation.

d, is a bypothetical diagram of a disc placed upon its edge.

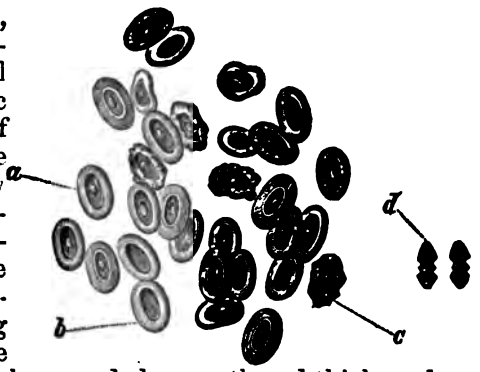


DIAGRAM II.—*a*, represents the perfectly formed, oval and characteristic disc, or globule, of the frog. In the central portion may be seen an oval depression, in the center of which can be observed the elevation representing the nucleus. The margin is shown to be rounded, smooth and thickened.

b, is like the former in every respect, except the central papilla is absent.

c, a shriveled corpuscle.

d, a corpuscle as it would appear set upon its edge.

It will be seen from the foregoing explanation that these bodies do not all possess a nucleus, or central elevation. In fact, there are in both the human blood and that of the frog a large proportion, perfect in every other respect, that do not possess this peculiarity. Whether this fact is due to an absence of this feature on one of the surfaces of the corpuscle, or to its non-existence in a certain per centage of cases, I am undetermined.

I have, as yet, examined but few pathological specimens. In one instance, however, in a case of advanced typhoid fever, the corpuscles, without exception, were found serrated, shriveled and distorted in the most remarkable manner, with the exception of the nucleated center. This seemed to maintain its integrity.

The reader, by reference to the diagrams, will observe that the corpuscles, both of the human and reptilian blood, are analogous in their general features, as, witness the elevated nuclei in the centers, the surrounding depres-

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arranged for uncovered objects, and the discs spread thinly over the surface of the slide. Corpuscles found in defibrinated blood are the best for observation. Those found in rouleaux do not show the nuclei satisfactorily.

sion and the elevated margins, together with the entire absence of nuclei in nearly equal proportions of each. It will also be observed that certain numbers are imperfect in outline, as if affected by disintegration; and this is true of a similar proportion of every specimen that I have ever examined. This apparent analogy of form and and feature between mammalian and reptilian corpuscles only supports what is generally acknowledged should obtain with these bodies in order to bring them in harmony with the known homology of other tissues, from whatever species of animal obtained. I believe that it is never denied that nerve, muscular, bony and other tissues, when compared with their kind, are essentially alike in their anatomical constitution. Why should blood tissue form an exception to this general rule? Do not the corpuscles perform the very same function, whether floating in the blood of a reptile or in the vessels of man?

With one exception I have not, as yet, extended my observations to the condition of blood discs in the various parts of the body. In the spleen pulp I found them mainly imperfect in form, being generally serrated, shriveled, and seldom nucleatd. Hæmatine, in granulated masses, was seen interspersed among the corpuscles. White corpuscles, in great numbers, were arranged around the margin of the specimen.

The Illuminator does not reveal any thing unusual concerning the white corpuscles; they merely appear as non-nucleated, globular bodies. It is remarkable, however, that they never associate themselves with the red discs, there seeming to be a perfect antagonism of position.

ART. III.—DIFFERENCES BETWEEN RICKETS AND MOLLITIES OSSIUM. By JOSEPH JONES, M.D., Professor of Chemistry in the Medical Department of the University of Louisiana, New Orleans, La.

Upon a superficial view, rickets and mollities ossium appear to be closely connected, on account of the flexibility of the bones and the fractures upon slight causes which characterize both diseases. Some authorities, led by their general resemblances, have regarded the latter disease as rickets attacking the adult. A careful analysis and comparison of the phenomena of the two diseases, however, will show that the resemblances of the two affections are far exceeded by their differences.

A deficiency, actual and relative, of phosphate of lime in the osseous system, characterizes both mollities ossium and rickets; in the former, however, the skeleton, originally normal in structure, loses its earthy matter, becoming fragile, soft and pliable; in the latter the osseous structure is abnormal from the first, or from an early age. Guerin found that, of three hundred and forty-six cases of rickets, two hundred and nine were affected between the first and third year, three were congenital, thirty-four occurred between the ages of four and twelve; one hundred and forty-eight were males, and one hundred and ninety-eight females. Cases of congenital rachitis have been mentioned by Hippocrates and other writers. Mr. Jamblin has described a skeleton affected with rickets in a seven months' fœtus. Rickets have been observed in the young of wild animals (lions and tigers) born during the captivity of their parents. The disease appears to be intimately connected with a marked cachexy of the system, which seems to be identical with the scrofulous, and to be induced by insufficient nourishment, combined with bad hygiene, damp, foul air. The process of dentition, also, by the disturbances which it causes in the alimentary canal, and by the drain which it establishes upon the mineral constituents of the blood, tend to develop and aggravate the disease.

On the other hand, mollities ossium attacks adults, especially women, after they have commenced childbearing.

In the sixteen cases collected by Mr. Curling, thirteen occurred in females, and only three in males; eleven were fatal between thirty and forty; in none did the disease show itself before puberty; but two patients were above fifty years of age, and several of them were delivered of children during the progress of the complaint.

The softening of the bones is slow and gradual in rickets, and unaccompanied by pain; while in mollities ossium it is accompanied with great pain. Sir Charles Bell quotes a remarkable case of mollities ossium, where a man, going up-stairs, struck his toes against a step and broke his thigh bone. The surgeon attended with all the proper appliances to the thigh bone, but the usual period expired without union being discovered at the fractured part. A consultation being called, on raising the leg the thigh bone broke again in the hands of the surgeons.

The disease proceeded to such an extent that the flexor muscles twisted the bones, so that the heels were drawn back of the head, and the trunk itself, before death, became greatly flexed.

Mollities ossium progresses in almost all cases to a fatal issue. In rickets, after a time, the abnormal condition is cured by treatment, or by the progress of age. Earthy matter is deposited in even more than its due proportion, the skeleton becomes solid and strong, and the general health may be entirely restored.

If the patient outlive rickets, and die afterward, it will be found upon dissection that the bones have assumed great weight and density, and, in some instances, the cavities of the cylindrical bones are said to have been filled up with earthy matter. And it has been noticed, in some instances, that such persons, on recovery from the disease, acquire a surprising degree of strength.

Sir Charles Bell mentions an individual by the name of Fanal, known on the streets of London as "Leather Coat Jack," who would throw himself under a hackney coach, and allow the wheel to go over him for a pot of porter. This short, deformed man, who had been afflicted with rickets in his youth, exhibited great feats of strength —bearing an anvil on his breast, and carrying the tallest men by placing his arms under their thighs. Sir Charles Bell also cites the extraordinary manifestations of strength by another dwarf and rickety subject, called the "Little Hercules."

The general health in mollities ossium is hopelessly impaired, the flesh and strength diminish daily, and, in some cases, the muscles undergo fatty degeneration. The observations thus far recorded have not been sufficiently numerous or sufficiently accurate to decide the question whether the degeneration of the muscles is always present in this disease. The fatty degeneration of the muscles in those cases in which it has been observed, can, with great reason, be referred to the action of the same causes which evidenced the softening and degeneration of the bones.

The pale color of the muscles in some cases of rickets appears to be due to the anæmic condition of the system rather than to fatty degeneration of the muscles; and we have just seen that after recovery from this disease the muscular strength, so far from being impaired, is often wonderfully increased.

In moliities ossium the loss of earthy matters in the osseous system is rapid, and is frequently attended with a copious phosphatic deposit in the urine; and the bones do not simply lose their earthly constituents, and become reduced to their cartilaginous flexible tissue, but there is an actual change in the living cellular elements of the bones, and a progressive degeneration, so that in many cases the bones consist finally of an external shell, filled with oily or lardaceous matter, held in membranous tissue. Though pathologists are still in doubt as to the exact nature of the change of the osseous system in this disease, the observations of Mr. Solly and Mr. Dalrymple have shown the existence of a process of active change, as manifested in the afflux of blood to the parts affected, and the abundant cell growth. Mr. Dalrymple has found, by microscopical investigation, that the bone corpuscles are considerably enlarged. Enlargement of the Haversian canals and of the lacunæ is observed. The cancelli are loaded with large oil drops, often tinted red, and combined with these numerous cells, varying in size from the 1-1200 to 1-500 of an inch in diameter, containing a rounded nucleus, also varying much in size, and occasionally showing various stages of division and endogenous development. And while there is a diminution of the earthy constituent, there is, at the same time, some important change in the animal basis of the bone; it no longer yields healthy gelatin, and is saturated with oil, which, to a great extent, is not contained in cells, but lies as a free fluid in the cancelli and medullary canal, and readily drains out when the bone is placed in an inclined position. The color of the oil is also peculiar, presenting bright yellow, pink, and deep crimson hues. These changes are probably owing, as Bennett has said, to an exudation from the blood-vessels, mingled with more or less extravasation of the colored corpuscles, in which new cells are developed, combined with fatty transformation of the albuminous and fibrinous materials. Virchow has traced fatty degeneration in inflamed bone as a part of the process of softening which precedes its expansion or absorption. Very often small fatty molecules appear in the bone corpuscles, and Virchow has traced their enlargement to the gradual softening, disintegration and final liquefaction and separation of the proper bone substance immediately surrounding and including each corpuscle. Analogous changes have been traced by Goodsir and

Redfin in cartilage, and Virchow has pointed out their relation to fatty degeneration as a part of the inflammatory process. And these changes in inflamed bone are of special interest, inasmuch as they are the results of the same process as that by which, nominally, the medullary spaces and areolæ of growing bone are formed, and by which mollities ossium is supposed to be produced.

On the other hand, the softening of the bone in rachitis should be regarded as arrested development of bone, with an increased growth of cartilage cells. In this disease the whole bone is soft, easily cut with a knife, and preternaturally flexible; cancellous texture of a brown or reddish hue predominates, and is at first filled with a serous liquid, which may be squeezed out, as if from wet leather; after some time the serous or albuminous liquid occupying the tubes and cancelli is transformed into a gelatinous substance, which is gradually organized into a cartilaginous state. The power to separate and deposit bony or earthy matter appears to be entirely wanting in the original cells of the osseous system in mollities ossium, while in rachitis this power is only temporarily suspended or arrested, and is resumed with increased energy after the removal of the diseased state.—[*St. Louis Medical Reporter.*

ANALYTICAL DEPARTMENT

"Qui e nuce nucleum esse vult, frangit nucem."—PLAUTUS.

ART. I.—ANALYSIS OF VARIOUS ARTICLES. Published in the Medical Times and Gazette, and the London Lancet. (Original copies.). By Prof. JAMES M. HOLLOWAY, Associate Editor.

Dr. Barnes, in the Times and Gazette, of January 9, 1869, writing in defense of his lecture upon the relative advantages of cæsarian section and craniotomy, in which he decides in favor of the latter operation, lays down the following propositions; 1st. That craniotomy with a conjugate diameter of two inches or less, offers an equal chance for the mother with cæsarian section; 2d. That we can diagnose with accuracy the degree of contraction

of the pelvis before operating, by the introduction of the whole hand; 3d. If the hand of ordinary size will pass through the brim, the cephalotribe can be applied; 4th. In all cases, the life of the mother must be preferred to that of her unborn offspring—a principle "dictated alike by science and by conscience."

Before the Clinical Society of London, Dr. Biegel read a paper founded upon one hundred and fifty-two cases of epilepsy. He stated that although unconsciousness and convulsion were frequent phenomena, there were many cases of epilepsy in which these symptoms were absent. He had found bromide of potassium the most important remedy for continuous administration; and relied upon the endermic use of morphia guarded by atropine, as suggested by Mr. Hurley, given immediately before the apprehended attack, "as a means of either warding it off or modifying its violence."

Dr. Crouch, before the same society, reported a case of primary amputation of the leg, upper third; before the patient had recovered from the shock of the injury, caused by gun shot. He cited Abernethy, as authority, for such a procedure.

Mr. Callender sustained Dr. C., and asserted that in a young subject, operations during collapse were usually well borne.*

Dr. Maunder "thought it contrary to recognized principles to operate during collapse," and regarded the result in this case as exceptional.

Dr. Pavy, before the same society, reported a case of diabetes mellitus, in a woman aged 68, successfully treated by opium, in gradually increasing doses, without restriction of diet.

The doctor thought that in elderly patients this plan would be generally successful; but that, in younger patients, in whom the disease was liable to assume a more severe character, restriction of diet would be necessary. At the time that the sugar disappeared from the urine in the patient named above, nine grains of opium per diem were being given.

Mr. Barnard Holt, Westminster Hospital, reports a case of recovery from fracture of the base of the skull—the middle fossa.

*The editor has now a report of a successful case.

There was hæmorrhage from the left ear for thirty-one hours, succeeded by a constant discharge of the cerebro-spinal fluid, which continued for the space of fifteen days.

Patient, aged 40 years, when admitted was insensible, cold, clammy skin, with stertor.

After reaction, induced by hot applications, the treatment consisted in the use of the ice bag to the head, milk diet and recumbent posture.

Mr. Spencer Wells, April 7, 1869, exhibited to the Obstetrical Society of London, a fibroid outgrowth from the fundus of the uterus, weighing nearly 35 lbs., which he had removed a few hours before the meeting. There was a short pedicle, and the tumor appeared to move "quite independently of a uterus of normal size." Upon opening the abdomen he was surprised to find that it was *not* an ovarian cyst.

Dr. J. Burdon-Sanderson, physician to the Consumptive Hospital, Brompton, under the caption "Phthisis ab Hæmoptisi," quotes aphorism of Hippocrates, "*ex sanguinis sputo, puris sputum et fluor.*" Although Laennec opposed the principle involved in this aphorism and had many supporters upon the broad ground that tubercle was a result solely of constitutional trouble, a dyscrasia, still from clinical observations, together with a more refined and definite pathological knowledge, Niemeyer, Baümler-Dueber and himself, and others were induced to go back to Hippocrates, and seriously consider his opinion.

Although many cases of hæmoptysis were not followed by consumption, still under the accepted view that foreign substances introduced into the lungs act as irritants and give rise to softening and formation of cavities, it is not unreasonable to include the unabsorbed constituents of the blood in the air cells and bronchioles as one of these irritants.

It is assuming too much to assert that a deposit of tubercle always precedes the hæmorrhage of phthisis. The absence of physical and rational signs of consumption do exist in many instances up to the time that hæmorrhage occurs, the patient being in robust health.

Dr. Weber regarded rest, in recumbent posture, important in treatment of hœmoptysis. He also attaches great value to ergotin, or the watery extract of secale, either given by the stomach or hypodermically.

Alfred Fleischman, F.R.C.S., Cheltenham, has had under his care thirty-four cases of acute rheumatic fever. Adopting the theory of Fuller, that "the essence of the disease is the presence of superabundant acidity," he depended exclusively upon (1) alkalies, (2) opiates, (3) blisters, and (4) flannel envelopes. He finds that the acetate and nitrate of potash is the best conjunction of alkalies, the maximum dose being a half ounce of the former and a half drachm of the latter in a wine-glass of water every two hours, until vomiting occurs or until the sweat ceases to redden litmus. He thinks that the alkalies fail in the hands of many practitioners because the doses given are too small.

In relapses he has found the alkaline treatment much less efficacious, inducing the suspicion that the full alkaline treatment predisposes to this.

Dr. Hughes Bennett read a paper on pneumonia, before the Medical Society of London, in which he presented the following axioms: 1. "That the great end of treatment was to remove the consolidation of the lung, and to restore the organ to its normal state. 2. All that diminishes the vital state should be avoided. 3. There is no relation between the violence of symptoms and the fatality of the disease, though the young are attacked most. 4. Low diet, too much or too early exercise, the use of purgatives, expectorants and other lowering measures, in convalescence, are bad. 5. In double pneumonia, with such special symptoms as severe dyspnœa, *small bloodletting might be used with advantage.* 6. Local pain should be relieved by large poultices. 7. The true disease was hepatization; this was removed by the transformation of the solid material into pus, its liquefaction, its part absorption into the blood, and its evacuation by the excretory organs. 8. These events were favored by the restorative plan, and diuretics during the progress of the disease. 9. The same pathological considerations and contingent treatment should be had in regard to all cases, complication being met by special means."

Dr. Richardson thought that the admission, by Dr. Bennett, of the value of bloodletting in some cases, undermined the basis of his restorative plan. He (Dr. R.) thought that venesection was valuable in the early stage of the disease, where there was intense congestion. In this view he was supported by remarks from Drs. Symes

Thompson, Day, and others, who took part in the discussion.

Dr. Von Trautvetter, after numerous experiments upon the dead human subject and upon living dogs, concludes that fluid injected into the rectum by means of the long tube reaches as far as the illio cœcal valve; while with the ordinary canula the fluid penetrates only to the lower portion of the descending colon.

M. Roux, of Meximieux, France, has recently treated, successfully, a case of spina bifida, by injection of iodine. "The tumor hung from the extremity of the sacrum to the lower third of both thighs."

After removing about an ounce of limpid fluid by an exploratory puncture, he directed an assistant to hold the tumor in such a manner as to occlude the opening into the spinal column. He then injected an ounce of the following solution: water, 11 drachms; tr. iodine, 3 drachms; iodide potassium, 180 grains. "The liquid was left five minutes in the sack, the latter being kneaded with the hand of the operator. The solution was then withdrawn to the last drop, by the exhausting agency of the syringe."

Dr. George W. Balfour reports in the Lancet, April 10, 1869, two cases of pleuro-pneumonia in the Royal Infirmary, Edinburgh, treated by the internal administration of chloroform.

In a clinical lecture upon these cases, he refers to the German observers, Wuchever, Baumgärtner, Varrentrap, and others, who employed the same agent, by inhalation, with success in the treatment of this malady.

Dr. B. had given chloroform internally, with unvarying success, since 1848. He could confirm the testimony of these Germans, in regard to the wonderful mode in which this remedy "brought down the pulse, moderated the fever, lessened the oppression, and, by checking the disease, changed the glutinous into a mucous phlegm."

He did not find it relieve pain, as observed by them, and, for that reason, was in the habit of combining it with ipecac and opium.

He preferred the internal administration of this agent to inhalation in this disease, because (1) by the latter mode its sedative action was sometimes developed sud-

denly, and had of itself proved fatal; (2) because of the expense attending the administration of a drachm at each inhalation from eight to twelve times in twenty-four hours.

The following are the formulæ which he uses ordinarily: Wine, ipecac and laudanum, of each two drachms; water five and a half ounces, of which mixture a tablespoonful is to be taken every four hours; chloroform, one drachm; olive oil, seven drachms; of which a teaspoonful is to be taken every four hours. Flax seed poultice to chest.

A correspondent of the Lancet, April 10, 1869, writes, in answer to an inquiry for a remedy for stammering, as follows: "I believe the best and almost only remedy is to keep the lungs inflated as much as possible, and never to attempt speaking when they are nearly empty, and also to speak slowly and distinctly. This ought to be practiced in private, so that it may become habitual."

Dr. Ben. W. Richardson, in a lecture delivered March 9, 1869, on increment of animal heat, shows the normal temperature of animals, compared with the temperature of man. He gives 98° F. as the normal temperature of man, that of animals and birds ranging higher, viz: the cat and dog at 102°; the sheep and goat at 104°; the pigeon and common fowl at 108°.

To the question, can the fatal increment of animal heat be determined with any degree of exactitude, he gives an affirmative answer. He bases his affirmation upon a series of experiments upon the lower animals and birds. He asserts that the fatal increment of heat is from 11° to 12° in these. For instance, a pigeon having a natural temperature of 108° will succumb, if the heat is increased to 120°. The same result occurs in a rabbit where natural heat is 104°, when it is elevated to 116°. A similar result occurs in the other animals named above.

The inference is remarkable, therefore, that the same law should be applied to man. His normal temperature being 98°—he cannot live when there is an increment of 12°—making 110°.

A correspondent of the Times and Gazette refers to the annual reports of the Glasgow Royal Infirmary for the years 1861-'62-'63, to show the ratio of mortality from primary and secondary amputations of the thigh,

leg, arm and forearm, and also the mortality from compound fractures before and after the introduction of carbolic acid or anti-septic dressings.

In 1860-'61 and '62, before carbolic acid was used, 1 in 3 of the cases of amputation died. In 1868, 1 in 2½ of similar cases died.

In 1861-'62 and '63, 1 in 4½ of the cases of compound fracture died. In 1868, with carbolic acid, 1 in 3 died. These figures show an increased ratio of mortality after the introduction of carbolic acid.

CLINICAL RECORDS.

"Ex Principiis, nascitur probabilitas: ex factis, vero veritas."

ART. I.—HOMEOPATHIC MIDWIFERY. PLACENTA PERMITTED TO REMAIN TWENTY-NINE HOURS WITHOUT ANY ATTEMPT TO REMOVE IT—CONVULSIONS—REMOVAL OF PLACENTA AND RECOVERY. By LEWIS A. SAYRE, M. D., Etc.

"On the 26th of June, 1867, Mr. D., of West Tenth street, near Fifth avenue, called on me about 10 o'clock, P. M., in great excitement, and wished me to see his daughter, Mrs. A., who was dying. While riding to his house he stated that "his daughter had been confined the day before, and had been attended by Dr. Risig, a very celebrated homœopathic physician, residing in 34th street. That she was delivered of a healthy daughter about 5 P. M., and the doctor left about six, telling them that 'everything was all right.' About 4 A. M., she was taken very ill, when they sent for the doctor, who came as soon as possible, and found her in a fit. He then called in Dr. Bayard, another homœopath, and the two had been with her all day, but she grew worse all the time, and they had now given her up, and advised them to send for a clergyman, as she could not live but a few hours."

On our arrival at the house, we found the mother, Mrs. D., and the Rev. Dr. Cook, of St. Bartholomew's Church, in the parlor. The doctors had just left the house as we went in. Mrs. D., who, like all homœopathic patients, was educated by her medical advisers to believe that any one attended by a regular physician is sure to be killed, became very much excited at our entrance, and rushing up to her husband, exclaimed "dear pa, the doctors have just left Virginia, and they say the medicine is just beginning to take effect, and there is one chance in a thousand for her—but if any allopathic doctor sees her now, it will kill her, certain," and turning to me, began to apologize for any offense—"that her daughter's life was of so much importance, and as the doctors had said there was only one chance in a thousand, and any allopathic treatment would certainly kill her, and under such circumstances she did not like to do anything that would risk her chance," etc., etc. I therefore prepared to leave, but as we reached the door, the servant rushed down stairs exclaiming, "Miss Virginia has got another fit," which, of course, changed the programme, and we hurried up stairs, and found her in a terrible convulsion. Muscles rigid; body bent backward, almost a case of opisthotonos; the teeth clenched upon the tongue, and blood frothing from the mouth; the face perfectly purple; in fact she presented all the appearance of immediate suffocation. Seizing a cord, which lay upon the table, I immediately girdled her extremities, near the trunk, and with a sudden jerk upon the cord, made such an impression on her limbs that they immediately relaxed, as if she had been struck with paralysis. By compressing and relaxing the thorax, with a few punches in the abdomen, respiration was restored, and in a few minutes the face began to assume its natural color, as normal breathing became established; but she remained perfectly uncon-

scious, and could not be aroused to any mental sensibility.

Finding the abdomen much distended, I made a vaginal examination, to see if there was any cause of irritation there or in the uterus, and found the os and cervix uteri filled with what I thought was a clot of blood. Passing my hand into the uterus, I found that this same mass filled its entire cavity, and as there seemed to be no uterine contractions on my hand, I was afraid to remove it on account of hæmorrhage, and, therefore, sent for some fluid extract of ergot—which arrived in probably ten or fifteen minutes. I immediately gave her a full dose, and in a short time the uterus began to contract with vigor, and gradually expelled my hand with its contents, which prove to be, *the placenta and membranes.* The placenta was quite soft and very offensive.

I requested the mother to get me a pickle-jar, with alcohol, in which I preserved it, in order to show her that when a regular physician had removed the cause of disease, nature would generally effect a cure without any homœopathic remedies.

I presented the specimen at the Pathological Society, and have it now in my museum.

Mrs. A. remained unconscious for four days, but eventually made a perfect recovery, although seriously injured in her nervous system for many months, and even to the present time, these four days are a perfect blank to her, being perfectly unable to recall a single circumstance that occured after the first convulsion, until nearly the end of the fourth day.*

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* A handsome phæton and a pair of horses formed a part of the remuneration made by this patient.—Ed.

ART. II.—SURGICAL CASES. Reported by EUGENE F. CORDELL. Clinical Surgery at the Hospital of the University of Maryland. From the Surgical Records.

Case 1. *Tracheotomy. By Prof. Christopher Johnston.* Richard F., æt. 4, was admitted June 2d, with the following history and symptoms: On the 30th of May, whilst tossing up grains of corn in play, he was suddenly seized with most violent efforts of coughing, accompanied by great dyspnœa. A physician was called, who, acting upon the suggestion of the instant, held him up by the foot, with the body inverted, and shook him thoroughly, hoping thus to dislodge the grain of corn, which he supposed to have gotten down the windpipe, and to be the occasion of the trouble. He has had occasional paroxysms of cough since, but neither violent nor very frequent. An examination of the chest showed normal resonance and respiratory murmur over both lungs; but over the region of the trachea, when he coughed, there was heard a sound like the clapping back of a valve. Having decided to operate, Prof. J. proceeded, performing Chassaignac's operation, as follows: The patient was placed upon the operating table, a pillow put beneath the neck to render the trachea more prominent, and the head held firmly by an assistant. Of course, owing to the parts involved, chloroformization was inadmissible. A tenaculum, with a groove along its convex margin, was pushed, point upwards, through the depression immediately beneath the cricoid cartilage. From this point an incision, one-half an inch in length, was made downwards, along the meridian line through the skin and subjacent tissue, so as to expose the cartilaginous rings. Bleeding ensued, but scarcely delayed the operator an instant. Passing the point of his scalpel along the groove, he boldly plunged it into the windpipe,

cutting downwards to the extent of his previous incision. The child struggled, and ejected froth and blood with violence from the opening; but the margins being promptly drawn wide apart by hooks, and the blood wiped away as fast as formed, a large grain of corn, swollen greatly by the imbibition of the fluids with which it had come in contact while in the throat, was thrown across the room. The child grew quiet almost at once, and began to expire through the opening, inspiration continuing to take place through the mouth. The child bore the operation with remarkable fortitude. A thin towel was placed over the part, and thus he was carried to his ward. He coughed frequently that night, and the air made a hissing noise in its escape through the aperture; but the next morning the parts seemed adherent, he breathed easily through the nostrils alone, and ate a hearty breakfast. At 12 M. we found him sitting up at dinner. It was necessary for him to leave that evening, so Prof. J. passed a single suture through the integument, at the centre of the slit, and fastened a little cotton over the latter by a band around the neck.

Case 2. *Ligation of Femoral Artery. By Dr. James H. Butler.*—Thomas B. fisherman, æt. 59, was admitted June 13th, for an epithelial cancer, involving the right ala of the nose, part of which was gone, and the inner canthus of the right eye, the sight of which was still perfect. It began five years before, but had advanced none for the past two years, and had never caused him any pain. Proper treatment was instituted. On the 25th of July, forty-two days after admission, he complained of pain and swelling in the right popliteal space, which, on examination, was found to contain a tumor of the size of a fist, expanding synchronously with the heart, ceasing its pulsation when the femoral was compressed above in the thigh, and communicating to the ear a loud, rasping

bruit. The patient, when interrogated as to the origin of this tumor, said that he had observed a swelling for two months past at that point, but, as it was painless and caused no inconvenience, he thought it of no consequence; also, that he had never had syphilis, or taken courses of mercury, but his health had always been perfect until the appearance of the epithelial cancer. Compression was first tried by means of a tourniquet kept continually over the vessel in the thigh, and digital compression contemplated. Under this treatment, which was continued for eighteen days, the aneurism grew larger, the pain in the ham became intense and extended along the popliteal nerve to the foot, and the patient was unable to straighten his leg or to walk. After an examination of the aorta throughout its course had excluded disease internally, it was decided to ligate the femoral, which was done on the 12th of August, at the lower extremity of Scarpa's Triangle. A silk ligature was employed, and no chloroform was given. The limb was cold for some hours after the operation; it then became inordinately warm, owing to the increased activity of the capillary circulation. Chilly sensations were experienced, and there was considerable suppuration from the wound for some days. On the 21st day the ligature was removed without hæmorrhage. The tumor gradually diminished in size until now it is barely perceptible.

Case 3. *Operation for Hydrocele. By Prof. Johnston.* Richard T., colored, æt. 37, was admitted May 20, with his left scrotum as large as a double fist, smooth and ovoid, traversed on its surface by swollen veins, hard, resistant, yet yielding a little to very firm, careful pressure. The cord was normal above, and there was no hernia at the external ring. The test of transparency, the most certain diagnostic feature in the white, was found on trial to be unavailable here,

owing to the dusky hue of the surface, cutting off entirely the rays of light. The right testicle and penis were perfectly natural. Fifteen years ago the patient received an injury in the affected part, which led to great swelling and pain. He states that this was the origin of the enlargement, now exhibited. On May 21st, he was placed on the operating table, and a minute exploring trocar introduced at the middle and fore part of the scrotum; this was followed by the flow of a thin, reddish serum from the canula. The trocar was then returned, in order to prevent the escape of water, which would have endangered the testicle in the subsequent operation. The next step was passing a curved needle and ligature through the integument, so as to embrace an inch or so of the walls of the sac, the object of this being to enable the operator to distinguish the cavity of the tunica vaginalis after the escape of the water, otherwise frequently a difficult thing. The ends of the ligature were tied together. Then a sharp-pointed bistoury was plunged from above downwards into the mass, making a full three-inch incision. The contents flew in every direction, bespattering the operator and his assistants. Several tents, or strips of linen, were then thrust into the cavity. These are intended to excite an inflammation, which, like pleuritis, causes the sides of the serous sac to adhere, thus obliterating its cavity, the only means of radical cure. No sutures, adhesive strips, or anything of the kind were used. The patient was carried to his bed, and the parts left open as they were, only a little dry lint being placed over the wound, and a bolster under the scrotum to support it. Chloroform was not employed. Two days afterwards, the wound was gaping considerably, and Prof. J. applied three interrupted sutures, leaving the lower edge open for the escape of matter which flowed abundantly. June 18th, he left the hospital.

Union was then going on by granulations, and he walked with comfort, with a suspensory bag, which was made for him.

Case 5. *Lithotripsy. By. Prof. N. R. Smith.*—John W., æt. 16, entered May 25th, 1869. The sound in his bladder detected a stone the size of an acorn, from the effects of which he had been suffering for some time. The operation was performed two days after admission. The patient being recumbent, his knees drawn up and separated, his buttocks drawn to the edge of the bed in front of the operator's chair, chloroform was administered, and the lithotrite then introduced into the bladder. The instrument which Prof. Smith employs is of the size and shape of a large catheter, with two arms—closely united so as to form together a cylindrical rod. The distal extremity of each is provided with an elongated flat rasp, which is made to approximate or separate from its fellow, by the revolution of a screw attached to the handle. The rasps being separated, and the extremity of the lithotrite pushed downwards against the bas-fond of the bladder, the stone, obeying the laws of gravity, readily fell within its grasp and was crushed. The halves were treated in like manner, and their fragments, until the crushing had been done some five or six times—as often as was deemed prudent. The particles were passed in the urine for several days. Great vesical irritation ensued, and there was severe pain in the hypogastrium, for which anodynes were freely employed. Six days after the operation, all bad symptoms had ceased, and the patient left for his home. In Prof. Smith's extensive collection of calculi in the museum of the University of Maryland, is a stone removed by him from this same patient, May 3d, 1866, by the operation of lithotomy. It is white, rather soft, with concentric layers like the onion, and of the size and shape of a goose egg. It is the largest he

has ever removed, with one exception. The operation was tedious, and the recovery extremely doubtful, owing to the debilitated state of the patient at the time.

ART. III.—OPIUM POISONING. By EDMUND R. WALKER, M.D., Baltimore, Md.

Case 1. February 23, 1866. Alice, colored, aged 18 months; an unknown dose of solid morphine taken directly from the vial, which I saw, with its remaining contents, was given by an ignorant mother, it having been taken in her presence, in large quantity, by the son of her employer, a great sufferer from an old wound. Though I afterwards remembered distinctly a case, in which, when a resident physician in Bellevue Hospital, in 1858, I used it with prompt effect, the symptoms of poisoning, not however, having been very grave, it escaped my memory at the time, and I employed Marshall Hall's method of respiration, alternated with sudden immersions in cold and then hot water, as in the still born, taking care, also, to keep up animal heat by artificial means, and by keeping the child near the fire. For several hours the respiration was either entirely artificial, or consisted of a convulsive gasp, when the body was immersed, without audible cry or other sign of consciousness or sensibility. My efforts, kept up from 10 P. M., till morning, were finally rewarded with success

Case 2. The functions were more profoundly involved in the last than any case which I have known to recover, save in a girl about 18 years of age, to whom, when suffering from syphilitic headache, 16 grs. of morphine were given by mistake at a dose. Part of it was thrown up, but, when first noticed, she was comatose, scarcely breathing, pulse gone at the wrist, and even up to the armpit. Happening in the hospital, electricity was used with

prompt and admirable effect in maintaining respiration; one pole of the battery being applied to the nape of the neck and the other to the thorax, and, as near as possible, to the diaphragm. Had she been alone, or the ward nurse not awake, the case would have been very soon fatal.

Case 3. May 5, 1867. A colored child, aged eight weeks. The rather weak-minded mother, annoyed by its crying, gave, she said, at least a half teaspoonful of laudanum. I inspected both vial and spoon. the one contained laudanum, and the spoon was rather below the usual size. I was sent for about half past 10 P. M., two hours after the dose was taken, and found the child unconscious. I relied on tinct. of belladonna, which she was forced to swallow, by holding the nostrils, with strong coffee, besides using the usual methods to arouse and awaken. The commencing dose was two drops, which was repeated at short intervals. The effect of the belladonna in dilating the "pin-point" pupil, was very soon manifest, but fearing to poison, and the child being so young, I contented myself with averting death, which the remedy certainly did, as no other sign of sensibility was manifested, save the swallowing, for several hours, indeed, I think, till morning. The whole quantity of belladonna administered during the night was about forty drops. The sleep gradually became natural, but lasted, save when it was roused up for a few moments to nurse, until sometime in the second day.

Case 5. August 5, 1867. This patient, a gentleman about fifty years of age or more, I saw, in consultation, and, though instantly relapsing into sleep when left at rest, he could be aroused. At my suggestion, one dose ℥ss. of tinct. of belladonna was given, but was not repeated, as, though I have no doubt it expedited his recovery, he would have, certainly, done well without it, the usual remedies having been used.

I could recount other cases, but they are of no particular interest.

ORIGINAL CORRESPONDENCE.

"Sit mihi Fas scribere audita."

PARIS, May, 1869.

I propose to give to your readers the substance of two lectures delivered on pus, putrid and purulent infection, at the *Ecole pratique*, by Dr. Fort, private professor of anatomy and surgery, an author well known in France, by his Elementary Treatise on Histology, and his second edition of descriptive anatomy and dissections.*

Pus is an alkaline fluid, which can be separated into two parts, one liquid and the other solid.

The liquid portion easily separates itself from the globules (the solid portion), which sink to the bottom of the vessel, leaving the serum transparent and of a citrine color at the surface. By a chemical analysis of the serum of pus, we find certain saline and fatty substances, but their study offers little interest. The solid portion of pus, such as separates and precipitates from the serum, contains several kinds of corpuscles: cells, fatty granules and granulations, red blood globules and sometimes crystalls of margarine stearine, chlolesterine, and even vegetable parasites, such as the leptothrix buccalis (Robin) and other vibriones.

The cells which constitute the pus globules are, according to Robin and Virchow, the same as the white blood glob-

*This most valuable work is to be translated into the English language at an early day, and, if practical works are sought after in America, its success will be beyond a doubt.

ules, and are formed of a granular and contractile mass of protoplasm; the young cells possess a special motion, (amœboid) indicating, as it were, the existence of a separate vitality. These two micographs will not admit any difference between these two species of cells, and they hold that the distinctive characters given by some authors do not exist normally, and that they are due to an alteration of these elements.

The greater portion of French and German surgeons, however, contend that the pus globule is the larger of the two, that it contains from one to five nuclei (generally three), but that there are also some in which the nucleus can be absent; it is to these latter that Lebert has given the name of pyoid globules. Robin explains the increase in size of the globules, by their sojourn in the serum; and the existence of a nucleus cannot, according to his idea, be considered as a distinguishing character, for we know that if a white blood globule is placed in contact with water or acetic acid, we have a formation of several nuclei; nor are Lebert's pyoid globules, according to Robin, anything more than unaltered globules, such as have undergone no change. Lastly, he pretends that the corpuscles known as *granular globules of inflammation* are nothing more than cells in the regressive state, infiltrated by fatty granulations.

The fatty granules have their origin with the pus globules; they are not numerous; and, as to the fatty droplets, they are due to some fat vesicle which has been incised by the bistoury, or some ruptured granular globule of inflammation.

The red blood globules owe their presence to the incision or the puncture practiced for the outlet of the pus, and, more especially, to the torn capillaries of the so-called pyogenic membrane surrounding the purulent collection. The other corpuscles found in pus are accidental. Cer-

tain changes can take place in the constitution of pus, and it is in this way that we are able to explain the presence of the *pathological milk* found in some tumors. These milk tumors, aside from those met with in women during pregnacy or lactation, or in the breast of the fœtus, do not exist; the fluid taken for milk is nothing more than pus, in which the protoplasm of the globules has become dissolved, and where the fatty granulations which have been developed in their centre have become emulsified by the serum of the pus.

Much has been said here lately about the caseous matter found in tubercular lungs, in the spongy extremities of long bones, etc.; these whitish masses were formerly taken for tubercles; to-day they are considered as concrete purulent masses developed by the process of inflammation, and of which the tubercle may be a cause. The grey granulations are alone admitted as tubercles; it was supposed that the corpuscles found in carious depots possessed a special character, but they are nothing more than depressed, shrunken and deformed pus globules, from which the serum has disappeared. This error was frequently committed about the time of the study of tubercles of bones.

The origin of pus has received various explanations; no one to-day, however, believes it to be the product of the pyogenic membrane, for we often find pus where this membrane (so wrongly named) is absent. Robin professes that the serum of pus exudes from the vessels of the inflamed region, and that this serum constitutes a blastema in the heart of which leucocytes or pus globules take birth spontaneously, just as other elements originate in a blastema. According to Virchow, the pus globules are developed in the corpuscles of the connective tissue, and which segment in the same manner as in the solid tumors.

Scarcely any one admits that the pus globules are the white blood globules which have traversed the capillaries. Cohnheim, however, in 1868, published the result of his experiments on this subject, which seemed to *prove* the passage of the white blood corpuscles through the capillaries; that by expansions and contractions they insinuate themselves through the epithelial cells, and succeed in this manner in making their way through the walls of the vessels. If these experiments should prove true, certain ideas, to-day accepted in pathology, would be very singularly modified.

Putrid and Purulent Affection. Putrid infection (septicémie) and purulent infection (pyohemia) are the two formidable accidents of suppurating wounds. These diseases were formerly confounded under the common name of purulent resorption; but to-day, thanks to the works of Bérard, Velpeau, Dance, Maréchal, and others, this regretable confusion exists no more.

Putrid infection differs from purulent infection in its nature, evolution and march, as well as by the lesions which it develops. We should know how to distinguish the one from the other, inasmuch as putrid infection is accessible to our means of treatment.

A *in its nature;* putrid infection shows itself only in cases where the pus, in contact with the outer world, has undergone an alteration in the chemical composition of its serum. This alteration betrays itself by the fœtid odor of the purulent focus; it consists in numerous transformations, of which the principal ones are the formation of sulphuretted hydrogen gas and phosphuretted hydrogen (phosphure d'hydrogen).

B *in its evolution.* The symptoms of putrid infection are due to the absorption of those gases by the absorbing vessels; it is the expression of a veritable poisoning. It sets in without a chill, and in this differs altogether from the beginning of purulent infection; the sub-icteric tint

so characteristic of this latter disease, is also absent. The breath of the patient is fœtid, the pulse small and accelerated, and, by profuse sweats and diarrhœa, emaciation progresses rapidly.

c *in its march.* We distinguish different forms of the disease, according to the quantity of the deleterious gas absorbed. In some cases it produces terrible symptoms; in others again, less violent, the patient presents irregular paroxysms of remission and return, and the disease may last for months. It is easy to understand that these variations are dependent upon the state of the focus of suppuration; if the altered and putrefied pus finds easy exit, the general symptoms diminish; if the wound is carefully cleansed and washed, they will disappear altogether. Cl. Bernard's experiments explain manifestly these various forms of putrid infection; we know that a small quantity of an aqueous solution of sulphuretted hydrogen injected into the veins or the subcutaneous cellular tissue of an animal, is carried into the lungs, where, with the other volatile products of the blood, it is excreted;* its passage through the lungs is easily proven by the well-known test of the acetate of lead paper, which, if held over the nostrils of the animal is colored black, because of the formation of sulphuret of lead.

Bernard, in repeating these experiments, remarked that in this way a great quantity of sulphuretted hydrogen could be absorbed without producing any bad effects, provided it was introduced gradually, and in small portions, so as to allow sufficient time for the lungs to eliminate the same. But if the absorption of the gas is accelerated so as to be no longer completely eliminated by the capillaries of the lungs, permitting a certain quantity to pass into the pulmonary veins, the left heart, and thence

* In a recent memoire, M. Fort has shown the identity of structure and of function between the lungs and a gland *en grappe.*

through the arterial current into the brain and other organs, intoxication is the result, just as if the gas were introduced directly into the lungs by respiration. The patient, with a suppurating wound, finds himself in a similar condition as the animal under experiment; he absorbs the deleterious gas which is dissolved in the serum of the blood surrounding the focus of suppuration; it is brought into the lungs, determines that fœtidity of breath and a series of general symptoms, which are in keeping with the quantity of the poison accumulated in the arterial blood, after having traversed the lungs.

D *in its lesions.* Putrid infection never causes purulent collections in the synovial sacs of the articulations, nor the formation of metastatic abscesses; the only lesions found are a tumefaction of the closed follicles of the intestines and Peyer's patches; in the experiments upon animals, other lesions, such as gangrene, have also been observed.

From the above facts we are permitted to conclude that putrid infection is curable, provided we can suppress the suppuration, and we will see next month what are the means employed to obtain that result.

NEW YORK CITY, June 1, 1869.

The chief excitement during the past two weeks in the medical world of New York city has been the prevalence of small-pox. This has been principally confined to the poor of the city, and many cases have broken out in Bellevue Hospital, and been sent up to Blackwell's Island. The small-pox hospital there contained, on last Saturday morning, about ninety cases; most of these had passed through Bellevue. The patients are first brought to the hospital, in the small-pox wagon of the Commissioners of Public Charities and Correction, and

upon their arrival at the hospital, they are placed in a small house built for their express accommodation, and are then shortly sent up to the Island in charge of nurses —most of the cases are foreigners. There have been but few deaths, and all the cases now in the hospital are in a fair way of recovery. It is believed, however, that the worst of the epidemic is now over, and that the Board of Health have this terrible disease under entire control. There are now eighty men canvassing the city with vaccine matter, and every person will be vaccinated who will submit to the operation. In this matter, the children attending the various public schools are to be attended to. With the exception of this epidemic of smallpox, the health of the city has been remarkably good, and the mortality low.

The temperature with us, has been, for the most part, delightful, and oonsiderably above that for the corresponding period of last year. The average temperature yesterday was 72¾; for corresponding day last year, 66⅝; average temperature for the week, 68 1-7; for corresponding week last year, 64 1-7; average temperature for the month, 60; for corresponding month last year, 58. The health of our neighboring city, Brooklyn, also, continues good, the number of deaths last week amounting to 153; of the deceased, 29 were men, 40 women, 45 boys, and 39 girls.

There is but very little going on at the city medical colleges, and consequently not much to write about. At the College of Physicians and Surgeons, Dr. C. R. Agnew has been appointed clinical professor of diseases of the eye and ear, and Dr. William H. Draper, clinical professor of diseases of the skin. In this connection, it may not be uninteresting to state that Dr. Agnew is one of the chief workers in a movement now going on towards the establishment of another eye and ear infirm-

ary in our city. Such an institution is much needed, especially in our up-town districts, and it is to be hoped that the project will prove a great success.

During the past year the number of marriages in New York city has been 17,000; of deaths, 23,443; of births, 31,000. There have been brought to the Morgue at Bellevue Hospital, during the year, 149 bodies, and of these, 78 have been recognized by their friends.

The first annual report, for 1869, of the New York Orthopædic Dispensary, No. 1299 Broadway, shows that 206 patients have been attended to since the institution was established, two years ago. The out-door patients, during the same period, have amounted to 1271. There are now in the dispensary, 125 patients, of whom 106 have Potts' disease. The following are the consulting surgeons, and it would be difficult, indeed, to find a more distinguished array of names: Drs. Willard Parker, Wm. H. Van Buren, C. R. Agnew, John Y. Metcalfe, and Ernest Krackowitzer.

The Willard Asylum for the insane, located at Ovid, in the State of New York, is now nearly ready for occupancy. The trustees have chosen Dr. John C. Chapin, late of Brigham Hall, a private institution at Canandaigua, as the superintendent. Dr. Chapin's qualifications for the position are first-class, and the appointment is an excellent one.

The institution is located on a bluff, overlooking the Seneca lake, and during the summer months the scenery is delightful. In 1865 the Legislature of New York authorized the building of an asylum for the chronic insane poor—a class of persons that are now, and have been for years, confined in the several county houses of the State. The name given to the institution was that of "Willard Asylum," in compliment to the late Dr. Sylvester D. Willard, of Albany, through whose instrumentality mainly it was finally established.

The medical journals of our city for the past two months have been particularly interesting and well filled with valuable contributions. The Quarterly Journal of Psychological Medicine, in its last issue, contains the following articles: one on physiology and pathology of the cerebellum, by Prof. Hammond; on intermarriage of relations, by Dr. N. Allen; on the influence of methomania upon business and criminal responsibility; on the character of Pascal; and a paper on judicial executions for capital crimes, by Dr. Calkins.

Yours very truly,

JAMES B. BURNET, M.D.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

"Judex Damnatur cum nocens Absolvitur."

I.—OUTLINE OF PHYSIOLOGY, HUMAN AND COMPARATIVE. By JOHN MARSHALL, F.R.S., Professor of Surgery in University College, London; Surgeon to the University College Hospital. With additions. By FRANCIS G. SMITH, M.D., Professor of the Institutes of Medicine in the University of Pennsylvania. Illustrated by numerous Wood-cuts. Philadelphia: Henry C. Lea. 1868.

II.—THE PHYSIOLOGY OF MAN: DESIGNED TO REPRESENT THE EXISTING STATE OF PHYSIOLOGICAL SCIENCE, AS APPLIED TO THE FUNCTIONS OF THE HUMAN BODY. By AUSTIN FLINT, jr., M.D., Professor of Physiology and Microscopy in the Bellvue Hospital Medical College, New York, and in the Long Island College Hospital; Fellow of the New York Academy of Medicine, Microscopist to Bellevue Hospital. 2 vols. New York: D. Appleton & Co. 1866–7.

III.—A TREATISE ON HUMAN PHYSIOLOGY: DESIGNED FOR THE USE OF STUDENTS AND PRACTITIONERS OF MEDICINE. By JOHN C. DALTON, M. D., Professor of Physiology

and Microscopic Anatomy in the College of Physicians and Surgeons, New York; Member of the New York Academy of Medicine; of the New York Pathological Society, etc., etc. Fourth Edition, Revised and Enlarged. With two hundred and seventy-four Illustrations. Philadelphia: Henry C. Lea. 1867.

A comprehensive review of the works, named above, would occupy more space than could be justly appropriated in one number of a medical monthly. A succinct enumeration, even, of the excellencies of each one of them would transcend the limit of the "Review Department."

It is proposed, therefore, to carefully consider the merits of each treatise in reference to its claims as a text-book for the medical student and guide for the general practitioner. For the American editor of Marshall states in his prefatory note that "in some respects, this one is better adapted for general use as a text-book" than many other excellent treatises, "both at home and abroad;" furthermore, Marshall himself says, in his preface, that his "work has been designed with a special view to its utility as an *Educational Book.*"

Flint, also, while claiming that his work, when completed, shall be a comprehensive treatise on human physiology, says that "he indulges the hope that he may be instrumental in making the student and practitioner of medicine better acquainted with what must be conceded to be the basis of true pathology," etc.

Dalton, too, states in the caption of his work, that it is "designed for the use of students and practitioners of medicine."

Having accomplished the object proposed, a summary of the various points of difference in physiological science advanced by each will be presented, and an effort will be made to reconcile, as far as possible, these theories with those advanced by other physiologists since these works were published.

Marshall's, as an "educational book," presents many deficiencies. The reader will look in vain for a definition of human or comparative or functional physiology. It is very true that the definitions given by authors generally are more or less imperfect, and do not convey a full meaning of the terms. Still, when Flint says that physiology may be defined to be the "*science of life*," or when Dalton says that it embraces "the study of the phenomena presented by organized bodies, animal or vegetable," they satisfy a conscious want in the mind of the student.

The same objection can be urged against Marshall, in numerous instances, where the other authors in question, satisfy this demand. For instance, no student could, unaided, form a definite idea as to what constitutes a *proximate principle* from the following; "called proximate constituents, because they are the first chemical compounds into which the several tissues may be made to resolve themselves." Granting this to be strictly true, the student, who is a beginner, would find it very difficult to understand clearly therefrom what the author means, and there is nothing explanatory given in the context. How much more definite are Flint and Dalton when they state, in italics—the former that "a proximate principle is a substance extracted from the body, which cannot be further subdivided without chemical decomposition and loss of its characteristic properties;" the latter, that a "proximate principle, is any substance, whether simple or compound, chemically speaking, which exists, under its own form, in the animal solid or fluid." And then when they instance chloride of sodium, or phosphate of lime, or water, as examples, the student can readily understand the difference between these substances as constituents of organized bodies, and the chemical elements of which they are composed.

Another serious defect in Marshall, not to be found in

either of the other works, is the almost uniform habit of quoting the views of various authors on disputed questions in physiological science, without expressing a definite opinion as to which one of these views is most reliable. The student, after searching in vain for the author's conclusions, will ask, "who is Beale or Kölliker or Pavy or Bernard? Which one of these ought I to select for my guide upon the functions of the liver or the spleen, or the lymphatic glands or absorption or innervation? Which does Marshall accept as the true theory?"

It is better for the student that the author be dogmatic on all doubtful questions—an assumption on his part by no means inconsistent with a due respect for the opinions of others who may differ with him. For the author is presumed to be not only familiar with the views of others, but competent to analyse them and select for the student that which proves to be, to say the least, most plausible. His duty to the student, who takes him for a guide, is paramount, and (to impress the idea more forcibly) the author had better present his own conclusions or adopt the conclusions of another, be they ever so erroneous, than to leave the student in a state of hesitancy and doubt. It is all important for the beginner to gather definite views, which will serve as monitors, when, in his future studies, he encounters the opposite views of others.

Flint and Dalton, in the preparation of their works, have fully appreciated the importance of such a course, and have avoided, generally, this fault of Marshall, as a teacher; in some instances, to such an extent as to render them, in some degree, liable to the charge of being either too hasty in reaching conclusions, or too persistent in adhering to exploded theories. For instance, we find Flint adopting, hastily, Richardson's *ammonia* theory as to the cause of the coagulation of the blood, which was retracted by that eminent investigator almost before the

first edition of the first volume of Flint had "left the binder's shop."* Dalton, too, may be very properly regarded as rather stubborn in still entertaining the opinion, that the heart is actually lengthened during its contraction. The haste or stubbornness, respectively, of these eminent teachers, is, in accordance with the above views, to be more readily excused, by the beginner, than would be the withholding entirely of a positive opinion.

It is readily conceded that a knowledge of anatomy and chemistry, as well as other collateral sciences, are important, or rather highly necessary prerequisites for the proper appreciation of the science of physiology. The beginner, who has mastered these, will have already accomplished the most difficult part of his studies. It is conceded, further, that it would be impossible to teach physiology, functional for instance, without constant allusion to the anatomical and histological relations of the structures concerned in the performance of the several functions. But it is not conceded that it becomes the duty, even of the author of a work on comparative physiology, to so trench upon the duty of the anatomist, as to crowd his work with chapters devoted exclusively to any of these branches. Anatomical facts should only be introduced into text-books on physiology, to an extent sufficient to call the attention of the beginner to the importance of a thorough knowledge of that branch of science; the beginner being deficient in that branch, his attention should be directed to any one of the many excellent treatises on anatomy.

This fault may be charged upon all three of the authors of the works now under consideration, though Dalton is the least faulty in this respect.

Marshall devotes the first seventy-one pages of his work to anatomy and dissection, besides many other parts of the work are devoted almost exclusively to des-

*A theory riddled by eminent physiologists *ten years ago*.—Ed.

criptive and comparative anatomy; while in other parts he mixes, wofully for the beginner, anatomy in detail, with the functions of parts or organs; as, for example, a full and lengthy description of the distribution of the respiratory nerves in connection with the functions of respiration.

Flint occupies much space with the description of the anatomy of the circulatory apparatus, of the muscles of respiration, and of the lymphatic system, a knowledge of either of which can be as easily, if not more agreeably, obtained from Leidy, or Gray, or Cruvilhier, or Wilson.

Such encroachments are deemed objectionable, if for no other reason than that the size and expensiveness of a text-book are thereby measurably increased.

Much space is appropriated by Marshall for the consideration of the anatomy and physiology of the lower animals. The material which Carpenter has collected and published in a separate work, Marshall has deemed appropriate for the extension of his work on "outlines of human and comparative physiology." This material occupies separate sections, and is printed "solid" and in small type. On the other hand, Flint and Dalton only introduce so much of comparative physiology as is necessary for illustration and the elucidation of processes which, being more complex in the human subject, are either more difficult to explain, or are, for obvious reasons, only to be inferred from analogy. Nothing can be said against Marshall's work on this account, since it professes to treat of human and comparative physiology; except that as a text-book for the beginner, the great mass of the information contained in the section alluded to, might have been omitted with propriety. It would not be unwise to predict, that not one in every hundred medical students who purchase this work, will read these sections carefully and correctly.

Flint's work is not complete, the last volume not having been published. He has, in the two volumes before us, treated exhaustively of proximate principles of the first class, blood, circulation, perspiration, alimentation, digestion and absorption. So far as he has gone, his work is valuable not only for the beginner, but for the well-educated practitioner. But the fact that it is incomplete, renders it unfit for a text-book. The next edition of these two volumes will necessarily require much alteration. For instance, the space devoted to the consideration of the cause of the coagulation of the blood, must be omitted; the reconciling of the discordant views of Pavy and Bernard, in reference to the glycogenic function of the liver will be added, and it is to be hoped, also, that the detailed description of the muscles of respiration, and of the teeth, etc., will give place to more appropriate material.

Of the three works, Dalton's is by far the most valuable as a text-book. His views are presented clearly and briefly, the illustrations are striking, his reasoning from analogy close, his experiments detailed concisely, and his conclusions clearly and definitely stated. He has been a careful investigator, a laborious student—and whatever conclusions he reaches are so presented, as to impress the student with the idea, that they are the result of either a rigid test of the accuracy of the observation of other physiologists, or of original discoveries as carefully weighed. He studiously avoids the discussion of doubtful points in physiological science, unless the very description thereof tends directly to the development of useful knowledge.

It remains for the reviewer to point out, as briefly as possible, some of the most prominent points of difference in regard to the fundamental principles in physiology, entertained by these authors.

Marshall inclines to a belief in the existence of a dis-

tinct investing membrane for the red blood-globules. Flint and Dalton, on the contrary, regard them as homogeneous in structure. Marshall states "that it is supposed" that the red corpuscle, before birth, is identical with the embryonic cell—in other words, is the result of segmentation of the ovum, and that, after birth, it is formed from the white corpuscle; while Flint and Dalton assert that it arises by *genesis* in the sanguineous blastema. Flint states that the red globule precedes the appearance of the leucocyte or white corpuscle in the embryo, and that after birth both are formed respectively, as other tissues are, from the plasma of the blood or lymph. That each is as fully an organized tissue, as bone and muscle and nerve are tissues, and that each is nourished and wastes as other tissues do.

Marshall asserts that the lymph corpuscles "resemble, outwardly, the white blood-corpuscles; but differ with them in being only large nuclei, and not nucleated cells." Flint regards them as identical with the white globules of the blood.

Flint inclines favorably to the theory of Richardson, in regard to the cause of the coagulation of the blood; but, as the latter has abandoned his own theory, the former may be said to have no special reason for maintaining it. Dalton regards the coagulation of fibrin—its "fibrillation"—as a morbid phenomenon; and Marshall, after giving, in detail, the views of others, thus presents his own, so plausibly, as to arrest the earnest attention of the reader:

"Finally, therefore, it is submitted that, out of the body, the solidification of fibrin, which is the sole cause of the coagulation of *drawn blood*, is due to a mere *physical*, molecular, or molar change, resulting in its transformation from a liquid to a pectous* state, as is common to colloidal bodies; that this change is permit-

* i. e. curdled, semi-fluid.—H.

ted, after the life of the blood, or the incessant nutritive mutations which occur in living blood, cease; that it is accelerated, or induced, by the contact of dead matter, either proper or extraneous to that fluid, and that it is to be regarded, not as a token of life, but as a sign of death. When coagulation occurs within the body, it is still under conditions indicative of the diminution or cessation of the ordinary vital interchanges of the blood, and so may be equally regarded as a physical process, or, at least, as one of those examples in which the essential cause is physical, though sometimes it may be utilized and directed by certain formative ends."

Marshall states (without committing himself) that most observers coincide with Bernard, in believing that the formation of sugar occurs in the liver constantly during life; at the same time he gives the opposite view of Pavy, who regards its formation in the liver, except in disease, as a post-mortem result. Dalton unreservedly adopts the theory of Bernard, and asserts that he has repeatedly confirmed it by experiments, which go to show that sugar has an internal origin out of all proportion to the quantity of vegetable matters that are taken as food.

Flint, in a recent article in the New York Journal of Medicine, reconciles, very clearly, the conflicting views of Bernard and Pavy, by the simple statement that the fact that no sugar is found in the liver during life, is no argument against its glycogenic function; because the sugar, during life, is washed away as rapidly as it is formed by the blood current of the hepatic veins.

Marshall entertains the opinion that animal heat is the result of a chemical process, similar to that concerned in the production of artificial heat, viz: the consumption of oxygen and the production of carbonic acid. Dalton, on the contrary, offers six principal objections to this view, and concludes that the production of animal heat does

not depend upon oxydation—the burning up of the food in the circulation—but is simply one of the nutritive processes; that the relation of the introduction of oxygen to the exhalation of carbonic acid, is "precisely that which exists between the food introduced in the stomach and the urine excreted by the kidneys."

Dalton admits that the saliva converts hydrated starch into sugar, when mixed in a vessel and maintained at a proper temperature—but that such catalysis does not occur during the process of mastication and insalivation, nor after the food has reached the stomach. In this he is sustained by Pavy. On the other hand, Marshall and Flint contend that the digestion of starch, by the saliva, is by no means inconsiderable; that it is accomplished more rapidly, when mixed with saliva, than it can be by fermentation, and that the catalysis is not arrested by the presence of a free acid. Flint offers the following fact, amongst others, to sustain the above conclusion: During stomach digestion only the surface of the bolus is exposed to the action of the acid gastric juice. For a certain length of time, therefore, the rest of the bolus, composed of an intimate mixture of the food—containing starch—and the saliva, is not brought in contact with a free acid. Consequently, those who regard the alkalinity of the saliva essential to determine the conversion, are silenced by the assertion that the starch, although in the stomach, is, for a sufficient length of time, as completely removed from the influence of a free acid as it was while in the mouth. Both Flint and Marshall, moreover, assert that neither the presence of diluted alcohol nor acids, arrests the action of *salivin* upon starch.

Dalton attributes the resistance of the walls of the stomach against the solvent action of the gastric juice, during life, to the precedence of those catalytic changes which are constantly occurring, viz: nutrition, secretion,

etc. These are so active during life as to exclude other processes; but when life ceases, they must necessarily terminate, and then the gastric juice exerts its power as a solvent of those very organs that were concerned in its secretion.

Marshall, on the contrary, seems disposed to adopt the explanation of Pavy, who attributes the resistance of the coats of the stomach to the alkalinity of the blood circulating in this very vascular organ. Flint styles the explanation "very ingenious," without giving it full credence.

The source of acidity of the gastric secretion is not even agreed upon by these authors. Marshall says free hydro-chloric. Prof. Smith, the American editor, quotes the result of the analysis by Prof. Rogers, of the secretion obtained from the stomach of the Canadian boatman, in which he found lactic acid to be "the main agent producing the characteristic reaction." Dalton agrees with Prof. Smith, and Flint writes: "In view of the facts above mentioned and the somewhat uncertain basis on which the supposition of the presence of free hydrochloric acid is founded, it seems almost certain that the free acid of the gastric juice is the lactic."

But enough has been presented to show that these authors entertain different views upon these questions in the science of physiology, upon which the greatest flood of light has been thrown. How much wider would appear the point of divergence upon those portions of the sciences less fully developed, as per example, the nervous system, if sufficient space were allowed for their enumeration, can be readily inferred.

That each of these works has been prepared with care cannot be questioned; and while the reader will find here and there a thought rather vaguely expressed, a principle not clearly explained, still, in comparison with other

standard works, each of them is creditable to its respective author.

To the advanced student and general practitioner it may be said, with truth, that their libraries would be rendered more valuable by the addition of these volumes; in each one of them there are manifest deficiencies that are fully supplied by one or both of the others. A careful study of their contents will familiarise the reader with all that is new in the science of physiology up to the period of their publication.

To the beginner, however, it can be said, as truthfully, that Dalton is far preferable as a text-book.

The mechanical execution of these works is very creditable to the publishers; the paper is highly finished and heavy, the type large and distinct, and the binding durable. J. M. H.

MISCELLANEOUS.

"Non Omnes Eadem Mirantur Ament Que."

ANALYSIS OF THE LIFE OF DR. NATHANIEL CHAPMAN.—Dr. Chapman was born in Fairfax County, Va., May 28th, 1780. His family was of British descent. He was principally educated at Alexandria, on the Potomac. He did not graduate at any literary college, though he spent a short time at two of them; not long enough, however, at either to be influenced or benefitted by the course pursued. He commenced his medical studies with Dr. John Weems, of Georgetown, D. C., and studied subsequently with Dr. Dick, of Alexandria. In 1797 he went to Philadelphia, and became a private pupil of Dr. Benjamin Rush, entering the medical department of the University of Pennsylvania, and graduating there in 1801. Immediately after graduation he went to Europe, and remained three years abroad. He spent one year with the celebrated Abernethy, in London, and went then to Edinburgh,

where he completed his studies in Scotland, and graduated. In Edinburgh he became an intimate of Dugald Stewart, the Earl of Buchan, and Brougham then a student. Returning to Philadelphia, he commenced his career as a practitioner in 1804. His talent, social charms, skill and success, soon made him a great favorite, and he attained a large and lucrative practice rapidly. In 1808 he married Rebecca Biddle, of Philadelphia: a connection which largely promoted his happiness and success. In 1810 he became associated with Dr. Thomas James, of Philadelphia, in a private course of lectures on obstetrics and the diseases of women. In 1813 Dr. Chapman was elected to fill the chair of materia medica, vacated by Dr. B. S. Barton, who was transferred to the chair of the Institutes and Practice of Medicine, made vacant by the death of Dr. Benjamin Rush. Dr. Chapman occupied this chair until the year 1816, when, on the death of Dr. Barton, he was elected to the chair of Practice, Institutes and Clinical Medicine. This position he held until the day of his death, July 1st, 1853. He delivered his last regular course of lectures in the winter of 1849–50. Dr. Chapman received many testimonials from his classes and the general public. From the classes he received chiefly a fine bust of himself; a silver service; a fine oil portrait of himself, by Sully; and another portrait by Nagle. The citizens of Philadelphia presented him with a massive silver pitcher, in gratitude for his valuable services in their behalf, during the terrible cholera epidemic of 1832.

"Besides his duties as professor in the University of Pennsylvania, Dr. Chapman performed other labors of a public character. In 1820, during a severe epidemic of yellow fever in Philadelphia, he, with Dr. Thomas Hewson, had charge of the City Yellow Fever Hospital. He also, for a long period, gave clinical lectures in the Hospital of the Philadelphia Almshouse. For nearly twenty-five years, also, he delivered a summer course of lectures in the Philadelphia Medical Institute. This institution, which is still in existence, is the oldest of its kind in the United States, and was founded by Dr. Chapman, in 1817, although he generously declined all participation in the fees, or control over the appointments to chairs.

Soon after his return from Europe, he published a work entitled, "Select Speeches, Forensic and Parliamentary," with critical and illustrative remarks, in five oc-

tavo volumes, which attracted much attention. In 1817, first appeared his "Elements of Therapeutics and Materia Medica," which went through several editions, one of them surreptitious. The treatise long maintained distinguished popularity among the works on Materia Medica, and now occupies a high rank as a book of reference. Of late years, Dr. C. refused to give his consent to the publication of new editions of the work, unless he could revise them. In 1820, he commenced the publication of the "Philadelphia Journal of the Medical and Physical Sciences," which he continued to edit for many years. The Journal was undertaken with liberal views, the doctor never receiving any salary for his services. He was subsequently an occasional contributor to different periodicals.

Dr. Chapman filled numerous and honorable appointments in medical and learned societies. He frequently occupied the post of President of the Philadelphia Medical Society, in which he was a leading debater when the floor of that Society was a field in which the ablest members of the profession met in earnest and often vehement discussion. He was the successor to Duponceau in the eminent distinction of the presidency of the American Philosophical Society, and was a corresponding member of many of the learned societies of Europe. On the organization of the American Medical Association at Philadelphia in 1847, Dr. Chapman was unanimously elected President of that body. On its reassembling in Baltimore, in 1848, he positively declined a reëlection, recommending rotation in the office, a system which has been followed ever since. Dr. C. wore these honors meekly, and as believed never made the slightest display of them.

He was not more distinguished for professional attainments than for courtliness and vivacity of manner, wit, knowledge of the world, and literary taste. His private character formed a marked contrast with that of his friend and contemporary, Physick, with whom he so long shared the first rank in the profession of Philadelphia. Physick, who shunned general society, and was little known, except in professional intercourse, had a reserved stateliness of manner, from which he never unbent. Engrossed by his patients and profession, he seldom entered into the every-day topics of life, and is remembered only as the skillful surgeon and successful operator. Chapman's temperament was cast in a different mould. Emi-

nently social in disposition, with a gayety of spirit that did not flag with years, a wit, a punster, delightful as a companion, and enjoying company, he, for a long period, occupied a position, one may say, unrivalled in the society of Philadelphia. To these brilliant qualities he united the kindliest feelings. His wit was without malice; he was frank, open-hearted, and open-handed. It is not surprising, then, that he was individually as popular as he was professionally eminent. He was emphatically the student's friend. With his heart and his purse always open, he was ever ready. not only to impart sympathy, but more material aid when it was needed. If Dr. Chapman had a greeting more cordial, or a grasp of the hand more friendly and earnest than another, it was reserved for such of his pupils as were from his native State, Virginia, as he ever retained and manifested a decided preference for Virginia and everything Virginian. This preference, however, was by no means carried to the degree of exclusiveness, for he was as much a favorite with the Northern as with the Southern student.

As a practitioner, Dr. Chapman was distinguished as much for the charm of his manner in the sick chamber, as for skill and success in prescribing. His lively conversation and ever ready joke were often more effective than anodyne or cordial. Indeed, in cases of trifling importance, the doctor sometimes prescribed little else. In pleasant chitchat, both patient and physician seemed to forget the object of the visit, and the doctor would depart and "leave no sign" for pill or bolus. In this connection, it is appropriate to introduce a single short anecdote which, as believed, is correctly attributed to Dr. Chapman. He one day received a hasty summons from a lady to attend at her house. On his arrival, he learned that her daughter had accidentally swallowed a shilling piece, and the mother was all anxiety and trepidation in view of the consequences. "Was it a good shilling?" coolly asked the doctor. "Yes." "Well, then, I guess it will pass," he replied, as he bowed and retired.

But when roused by symptoms of actual severity, Dr. Chapman was almost as unequalled in resources as he was devoted in attentions. Hence, as a consulting physician, his great powers were particularly conspicuous. Rapid and clear in diagnosis, inexhaustible in therapeutics, self-relying, never discouraged, he was the physician of physicians for the emergency. 'As a lecturer,' says

Dr. Jackson, 'Dr. Chapman was self-possessed, deliberate, and emphatic. Whenever warmed with his subject, his animation became oratorical. Often the tedium of dry matter would be enlivened by some stroke of wit, a happy pun, an anecdote, or quotation. He was furnished with stores of facts and cases, drawn from his own large experience and observation, illustrating principles, diseases, or treatment under discussion. His bearing was dignified, manners easy, and gestures graceful. He had a thorough command over the attention of his class, with whom he always possessed an unbounded popularity. His voice had a peculiar intonation, depending on some defect in the conformation of the palate, that rendered the articulation of some sounds an effort. The first time he was heard, the ear experienced difficulty in distinguishing his words. This was of short duration; for, once accustomed to the tone, his enunciation was remarkable for its distinctness. Students would often take notes of his lectures nearly verbatim.'

'His name,' says the same writer, 'is inscribed on the pages of the medical history of our country, with those of the distinguished and memorable men whose cultivation and labors have advanced and illustrated our science. * * * It is embalmed, cherished, and revered in the grateful bosoms of the thousands who loved him as a man, valued him as an instructor, and blessed him as a physician.'

In the spring of 1850, his declining health made it necessary for Dr. Chapman to resign his professorship in the University, but he was immediately chosen by the trustees, emeritus professor. From this time to his decease, his health continued to fail, and he died on the 1st of July, 1853, of a slow and gradual decay, rather than of any positive disease."

The writer is indebted to the "History of the American Medical Association," for the facts and material of this analysis.

REPORT OF THE COMMITTEE OF THE AMERICAN MEDICAL ASSOCIATION, ON VARIOUS PROPOSITIONS AND COMMUNICATIONS FROM MEDICAL SOCIETIES, ETC.—After a fair examination of the various propositions concerning medical education, medical legislation, and ethical regulations for medical colleges, referred to your committee, we respectfully submit the following report:

WHEREAS, The results of all the efforts made during the last twenty-five years, to elevate the standard of medical education through concert of action among the numerous medical colleges of this country, have proved with equal clearness that such concert of action in an efficient manner is unattainable, therefore,

Resolved, That whatever is done to establish and maintain a just and fair standard of medical education throughout our whole country, must be done by the profession itself, through its own voluntary organizations, in the same manner that it now establishes and enforces its code of ethics. The profession is as competent to declare, through its representatives in the National, State, and local Societies, what shall be the standard of attainments for those to be recognized and admitted into the ranks, and to establish the boards or agencies by which compliance with such standard shall be ascertained, as it is to declare what shall be the ethical rules governing the conduct of those already admitted.

Resolved, That the Association earnestly request each State Medical Society to appoint annually one or more boards of examiners, composed of five thoroughly qualified members, whose duty it shall be to meet at suitable times and places, for the examination of all persons, whether graduates of colleges or not, who propose to enter upon the practice of medicine in their respective States, except such as have been previously examined and licensed by a similar board in some other State.

Resolved, That each State Medical Society be requested to make such regulations concerning the pay of the boards of examiners, and the fee to be charged for a license to practice, that the former shall in no case depend on the amount received from the latter.

Resolved, That each State Medical Society be requested to require its examining board or boards to exact of every applicant for examination, adequate proof that he has a proper general education; is twenty-one years of age, and has pursued the study of medicine three full years, one year of which time shall have been in some regularly organized medical college, whose curriculum embraces adequate facilities for didactic, demonstrative, and hospital clinical instruction.

Resolved, That each State Medical Society be requested to act on the foregoing propositions at the next regular annual meeting after the reception of copies of the same,

and if approved and adopted by the State Medical Societies of two-thirds of the States, this Association shall deny representation from all organizations who longer refuse to comply with the same, and shall recommend the State Societies to do the same, and all persons who, after that date, seek to enter upon the practice of medicine without first receiving a license from some State Board of Examiners, shall be treated ethically as irregular practitioners.

Resolved, That in adopting the foregoing resolutions, by which it is proposed to treat the medical college diploma the same as the diploma of any literary college, this Association is actuated by no desire to injure the medical schools of our country. On the contrary, by the adoption of the fourth resolution at the same time that the value of the mere college diploma is practically nullified, it is the desire, and confident expectation, that these Institutions will be greatly benefitted; because they will be forced to rival each other in the extent and efficiency of their course of instruction, instead of in the number of diplomas which they can annually distribute.

All of which is respectfully submitted.

N. S. Davis,
Paul F. Eve,
E. S. Gaillard,
E. Lee Jones,
J. K. Bartlett.

The Kentucky School of Medicine, and Remunerative Fees.—We are glad that the Kentucky School has taken the lead in this matter, and thus gallantly wiped out the reproach of being a "cheap school." It is to be hoped that the other schools in Louisville, and especially the University of that city, will follow the example thus set, and come up to the expressed wish of the profession, as embodied in the resolutions so unanimously adopted by the American Medical Association.

The subject of cheapening medical education, and thereby degrading the business of medical teaching, having attracted the attention of the representatives of the profession, and called forth so emphatic an expression of opinion, can no longer be disregarded by the schools with impunity. It is obvious, therefore, that those institutions which shall hereafter persist in adhering to the cheap rates of tuition, must be content to occupy an inferior grade, and their alumni treated accordingly.

We have never been able to see why it is any less disreputable to undercharge in the matter of medical teaching than in medical practice, since the motive is the same, and alike unworthy in both instances—that of attracting students in the one case, and securing patients in the other. Indeed, there are many obvious reasons why it is even more disreputable, more censurable, in the former than in the latter case. The school that is not willing to rest its claims on the broad and elevated ground of merit, but finds it necessary to resort to the miserable subterfuge of undercharging, is not worthy of the patronage of the profession. This is the literal meaning of the resolution of the Association, and this, we doubt not, will be the verdict of the great body of the profession.—[*St. Louis Medical Reporter.*

LIBRARY MEDICAL DEPARTMENT,
UNIVERSITY OF LOUISVILLE, May 27th, 1869.

At a meeting of delegates* from Medical Colleges for the purpose of considering the question of fees, which was held this day, the following colleges were represented by delegate or letter, viz:

University of Nashville; Shelby Medical College, Nashville; Memphis Medical College; St. Louis Medical College; Humbolt Medical College of St. Louis; Rush Medical College of Chicago; Chicago Medical College; Indiana Medical College of Indianapolis; Miami Medical College of Cincinnati; University of Louisville.

On motion, Dr. Bowling was elected Chairman, and Dr. Bayless Secretary of the meeting.† After a prolonged conference, the following preamble and resolutions were adopted:

WHEREAS, The call for a convention of delegates from the Medical Colleges of the West, for the purpose of arranging a uniform scale of fees, sent by the Faculty of the Medical Depaatment of the University of Louisville to the Colleges of Nashville, Memphis, Cincinnati, Columbus, Cleveland, Detroit, Chicago, St. Louis, Indianapolis, and Louisville, has met with a *cordial* response in person or by letter from a majority of said Colleges, and

WHEREAS, The fact that several of said Colleges have

*Three.

†Leaving Prof. Mussey, of Cincinnati, (the only other delegate present) to represent the audience, or body of the Convention.—ED.

issued their announcements for the ensuing sessions makes definite action at present impossible, and

WHEREAS, The views and opinions of the various schools, as given by delegates and letters, differ greatly, therefore be it

Resolved, That it is the hope of this *Convention* that a uniform scale of charges shall be adopted by all the Medical Colleges of our country, and we do most earnestly advise such a scale shall be agreed upon; *and it is our belief that the glory and usefulness of our profession would be enhanced by the adoption of the highest rate advised by the American Medical Association.*

Resolved, It is not less to be hoped that all the Medical Colleges of our country would fix a higher standard of preliminary and medical education as a pre-requisite for graduation.

Resolved, That the Convention request all the Medical Colleges in the United States to send each one delegate to a meeting to be held in Washington, on Monday, May 2d, 1870, to take efficient steps toward carrying out, in good faith, the recommendations of the American Medical Asssociation in reference to medical education, and also to form a permanent association of American medical teachers.

Resolved, That a copy of these proceedings be sent to all the medical journals in the country.

WILLIAM K. BOWLING, President.

GEORGE W. BAYLESS, Secretary.

WHEREAS, The American Medical Association having adopted, at its recent meeeting at New Orleans, a uniform rate of collegiate fees, and requested Schools of Medicine in the Middle States to conform to the rate of fees charged elsewhere; considering it unethical for colleges to underbid each other pecuniarily, as it is for practitioners to do so,

Resolved, That the Lincoln County Medical Society fully endorses the action of the American Medical Association, and pledges itself (as far as power in it lies) to aid and assist in this reform, by discouraging students from attending schools, where the low-system of fees is charged.

Resolved, That a copy of this paper be sent to the Richmond and Louisville Medical Journal for publication.

W. E. DAILEY, M. D., Secretary.

At a meeting of the Boyle County Medical Society, held in Danville on Tuesday, May 25th, 1869, it was

Resolved, Unanimously, that the "Boyle County Medical Society of the State of Kentucky" deem it proper to hereby give expression to its approval of the recent action of the "American Medical Association," recommending remunerative fees for the courses of lectures given by the different medical schools of the country, and discountenancing, as derogatory to the dignity and true interests of the profession, the low-fee courses, of late years too common among our medical colleges of the West, and that we heartily unite with the Association in urging all the schools of our State charging less than the minimum sum agreed upon by that body, to advance their fees at least to the amount mentioned.

That we desire, also, to put on record our full concurrence with the Convention in declaring private handbills addressed to members of the medical profession, or by cards in medical journals calling the attention of professional brethren to themselves as specialists, in violation of the code of ethics.

That a copy of the minutes be forwarded to the Richmond and Louisville Medical Journal, as the local organ of the profession of the State, for publication, and that another be sent to the permanent Secretary of the Association.* JOHN D. JACKSON, M. D., Secretary.

A SENSITIVE AUTHOR.—We regret to see that Dr. Ruppaner, of N. Y., has allowed himself to write a scurrilous letter to Dr. Luther Parks, of Boston, editor of the Boston Medical and Surgical Journal, about a review of Dr. Ruppaner's work on Laryngoscopy, which appeared in that periodical. Such conduct reflects no credit on him, either as an author or as a gentleman. Every one, indeed, who reads the letter as it is published at length in the Medical Gazette, will see that the writer has forfeited his his claims to the latter title. Any one who writes for the public, would do well to submit to the criticism of the press, and not further damage himself by assaulting critics with unmannerly letters.—[*Med. Sur. Reporter.*

When Nélaton performed the late operation for the removal of a wart upon Patti's head, the eminent surgeon declined taking a fee, saying he was already indebted to *la diva* for innumerable *notes*.—[*Ex.*

*The action of all Societies will be published.—ED.

MEDICAL NEWS.

"Nulla Dies, Siue Linea-"

The following changes have recently taken place in the University of Maryland, Baltimore, Md., in the faculty of this institution: Prof. N. R. Smith now fills a newly-created chair of Clinical Surgery; Prof. C. Johnston, the chair of Principles and Practice of Surgery; Prof. J. J. Chisolm, Operative Surgery, with Clinical Professorships of Ophthalmic and Aural Surgery; Prof. Allan P. Smith, newly-created chair of Venereal Pathology; Prof. F. T. Miles, formerly of the Medical College of the State of South Carolina, the chair of Anatomy; Prof. F. Donaldson, chair of Physiology and Hygiene, with Clinical Professorship of Diseases of the Throat, Lungs and Heart.—*N. Y. Med. Jour.*

The Journal of the Gynæcological Society, of Boston, will be issued July 1st. Its editors, Drs. Winston Lewis, H. R. Storer, and George H. Bixby, are well and favorably known, and will certainly issue a work deserving of support. The size of the Journal will be sixty-four pages, octavo; it will be issued monthly, at the subscription price of $3 a year, or thirty-five cents a number. James Campbell, 18 Tremont street, Boston, has charge of the publishing department, and will issue the Journal in good style. We wish it success.

Revista Medico Quirurjica y Dentistica.—The proprietors of the Revista Medico Quirurjica y Dentistica deem it their duty to their American *confrères*, who have so cordially extended to them the courtesies of the editorial fraternity, to announce the suspension of their Journal. This is due solely to the political troubles now existing in the Spanish West Indies.

Publication will be resumed, it is hoped, in January, 1870.

Nearly every Medical Journal in the United States has exchanged with the Revista; and for this kindly recognition of our effort, we desire to express to each, our most grateful thanks. Wilson & Gonzaels.

Havana, May 1st, 1969.

A Surgical Prize.—The Surgical Society of Paris has just announced the subject of the Laborie prize (£48) to be awarded in January, 1870: "Point out, by the aid of clinical facts, the actual value of supra-malleolar amputation from the following point of view: 1. The mortality consequent upon the operation. 2. On the different ways of performing it. 3. The usefulness of stumps in the act of walking. 4. The artificial limbs best calculated for these stumps."—[*Medical Record.*

Prof. Paul F. Eve has moved definitely to St. Louis. This is a serious loss to Tennessee, but a great gain to Missouri. He leaves warm friends, and a very few, vindictive, but impotent enemies. No one more deserves friends, and no one can be less injured by enemies. He has been justly received in St. Louis by warm hearts and with open arms.

Medical Instruction.—Drs. R. S. Madison and J. D. Myers, of Lexington, Va., propose to open a private school for medical students this summer; fee, $5 per month, in advance. These gentlemen will render more than an equivalent for their very moderate charge. Dr. Madison is known to the editor, and is fully capable of discharging efficiently the labor of teaching.

Medico-Chirurgical Society of Louisville.—At the last meeting in May, the following officers were elected: Dr. John Thruston, President; Dr. S. Brandeis, Vice President; Dr. R. F. Logan, Recording Secretary; Dr. Waller Bullock, Corresponding Secretary; Dr. T. P. Satterwhite, Treasurer; Drs. W. H. Galt, S. B. Mills, S. P. Breckinridge and E. S. Gaillard, Censors.

The Faculty of the Cumberland University have determined, under the present condition of affairs, (pecuniary and political, in Tennessee), to return the charter of this Institution to the Trustees.

Prof. Dr. Von Bruns, of Tübingen, has received the prize of 20,000 livre, offered by Dr. Riberi of Turin, for the best work on Surgery. Dr. Bruns' work was on Surgical Laryngoscopy.

Charles U. Shepard, Jr., of the class of 1863, Yale, has been confirmed Professor of Chemistry in the Medical College of South Carolina, in place of his father, resigned.

At the commencement of the Medical Department of the Willamette University, Oregon, March 3d, nine students received the degree of M.D.

Liberal Donation.—Mr. Erasmus Wilson has munificently presented to the London College of Surgeons the sum of £5000 to endow a Professorship of Dermatology.

EDITORIAL.

"Nullius Addictus Jurare in Verba Magistri".—Hor.

Medical Societies.—Immediately after the adjournment of the recent harmonious and most efficient meeting of the American Medical Association, there is perhaps no subject which can be more appropriately, though briefly presented, than that of the formation and development of medical societies. Individual study and research are most laudable and useful; but, as has been well said by many of the best men in our profession, the greatest possible cultivation of medical and general science becomes comparatively inefficient, unless there is coincidently a creation of those moral agencies which control medical men, and bind them harmoniously together.

There is no motto more appropriate, and none which, if uniformly observed, would bring greater power to physicians than that of *vis unita fortior*. The fable of the old man calling his sons together, and requiring them to break with ease single "sticks" which, when aggregated, they were powerless to injure; the coil of a ship's cable, used symbolically to illustrate the force and meaning of the Latin motto mentioned; the old figure of single grains of sand being moved by the rain-drop, when, if aggregated, they become efficient barriers to the mighty force of the ocean breakers, are all used to indicate the effect and power of union, but nothing could teach the nature of such a truth more forcibly and eloquently than the formation and development, on the part of physicians, of

county, city and State societies. Medical men may be learned, and may increase such learning by individual study, but organization and union give such accumulated forces increased power, and increased power gives grander results.

What are some of the undeniable advantages of medical societies? In what way do these bodies repay those who create and develop them? They induce study; they disseminate the fruits of study; they eliminate the errors intermingled with the great truths which are made manifest by study; they aggregate the fruits of study; they develop force and facility in collecting, analyzing, arranging, presenting and preserving subjects for study; they indicate those who are engaged in study, and, consequently, those whose powers can be obtained, encouraged and utilized. Pages of facts in illustration of these truths could be easily given, but this is unnecessary and impracticable. Those who remember the life of Sargent S. Prentiss, remember illustrations sufficient to establish the truth of all that has been claimed. A poor and humble teacher from New England becoming, as a tutor, an inmate of a Southern family; unconscious of power; diffident beyond expression; seduced into membership of a local society; his first effort; his triumph; his rapid and brilliant rise; becoming soon the honored representative to the Legislature of his adopted State; a leader at the bar; the pet of assemblies; the representative to Congress; the Senate Chamber emptied to listen to his magnificent eloquence; a master on the rostrum and in the forum; the gifted young orator styled in a few years, and styled justly, "the thunderer of the West." Here is the fruit of a single society in a quiet and retired county settlement. Societies do not always of course yield such results, but if time and space admitted, how many examples could be given of those who, unconscious of power, and being induced thus to display it, became adopted as leaders and acknowledged as teachers? The literature of medicine alone abounds in such examples.

If societies effected these results only, there would be every incentive to create and nurse them; but there are other results equally important and suggestive. It is notorious that the suggestions of the great are often elaborated and perfected by those far their inferiors. When the great Watt gave to the world that mighty power, the steam engine, his greatest efforts could not

make it automatic; he could not invent any mechanism which, by its action, would introduce the steam alternately into the front and rear of the steam cylinder. This result was accomplished by boys who were employed for the purpose. It remained for one of these ingenious little engine-boys, who was more fond of play and mischief than of his work, to attach a mechanism which would do his duty while he was enjoying himself. This is the history of the eccentric motion in this engine. It remained for a little boy in Holland to develop what the immortal Scotchman had created, and what he had in vain endeavored to perfect. Huygens, after his abstruse equations concerning oscillating bodies, had his pendulum perfected by the humble artisans of England, and Morse, after his comparative annihilation of space, has seen his machines improved by his subordinates in science and in sense. Here feeble powers have developed the magnificent creations of great inventors.

Again, or conversely, how often does the great mind utilize and elaborate what the humble thinker has abandoned as complete. As the soul of the worshipper is thrilled by the magnificent tones of the mighty organ, how difficult it is to believe, that the power which adds sublimity to the music of the sanctuary, is but the elaboration of an instrument invented by the humble herdsman.

It is evident, then, apart from all of the relations which medical societies bear to study, inducing it, disseminating its results, etc, etc., that there are other great advantages in societies, from the fact, that in such bodies the suggestions of younger or less informed members are often elaborated by those older and better informed; and conversely, from the equally evident fact, that the teachings or views of the more matured members are often developed by the suggestions of their inferiors in age and acquirement.

There are, however, still more valuable results from such societies. As high courts of ethics, they become the arbiters and umpires, in regard to all professional matters affecting the reputation and character of physicians. They sustain that high, moral standard of professional action, without which mere scientific acquirement becomes utterly valueless. Character to the physician (as it should be to all men) is far more important than life, and nothing tends more fully to the maturation and development of

character, than the existence of those strong moral agencies which constitute the very life of all well regulated and well working medical societies. It may be said, that the ethical code, constituting the basis of the organic laws by which medical societies are governed, is nothing more than the law which should govern a gentleman; but how many are there who are not and can never be gentlemen; who act correctly, solely from compulsion? Again, if such reasons render the code of medical ethics unnecessary, they would render, with equal justice, all laws unnecessary. If men would do only what was just and right, all laws would become valueless. It may do for Utopian dreamers to ignore laws, but those who are prepared to deal with facts, and not with dreams, realize the necessity for laws medical, as well as laws civil, moral and divine. Accepting, unavoidably, these facts, there is at present no better code medical, than that established by the American Medical Association, and, as an expounder of this code for the local government of physicians, there must be local medical societies or there must be disorder, disgraceful action, and professional degradation.

It is a great comfort and support to every man, of a well ordered mind, to feel that all matters affecting physicians, personally as well as professionally, can be submitted to a court composed of his compeers; from which court he can on all occasions expect a just and generous decision. It may be painful to go before such courts; it may be painful to have the valuable time of Societies appropriated to the discharge of their duties as ethical courts; but how much better is it to fully support societies which, if vigorously administered, will so discharge these ethical duties as to equitably settle all questions requiring settlement, than it is to forsake societies at such periods, and to lapse necessarily into a condition of professional anarchy. Medical societies should be rigorously administered in their ethical jurisdiction; it is the duty of every member to encourage this, not only by precept but by action. Members who act thus are entitled to the confidence and esteem of all true men. Those who are ready, impolitely and foolishly, to express weariness and annoyance, if it becomes necessary for societies to discharge their duties as high courts of justice and equity, would, if such courts were not generous as well as just, forfeit all right to consideration, when they request for themselves the judgment and decision of their brethren.

There is no greater error than that made by many, in supposing that the ethical labors of societies induce professional grievances and disorders. They expose and remove them. A body of water at rest is quiet, but examine it and learn what is the result of this stagnation. Analyze it and what is there which is abhorrent to the senses that is not discovered. Allow it to remain at rest, and it becomes a source of pestilence and danger. Agitate it, allow it to move, expose it thoroughly and its foulness becomes slowly but finally removed; what was a quiet but filthy pool becomes a clear, sparkling, clean and moving stream; bright to look at and an active, useful power. Is not this also true in regard to a body of physicians?

The advantages of medical societies are appreciated at all of the great centres of population. The best men are members of these societies. The great medical men of Europe and America are society-men. They are the great workers; attending faithfully; preparing specimens; listening well; speaking earnestly and carefully; not afraid of committee work, and not so indolent, as to be always asking for an exemption from such service. These great men attend commendably, working zealously and well. It is only in small towns and villages, that there are to be found those smaller men, who, as members, are guilty of the foolish affectation of deriding or depreciating the efforts of others, but take care to say nothing themselves; who, when present, are either unable to contribute anything or are afraid to attempt it; who manifest a culpable disregard of their assumed obligations; a disregard of the success of organizations for whose creation, development and continuance, they made themselves, not only voluntarily, but publicly responsible. As is cheerfully and triumphantly declared, by these derelict members, who ludicrously aspire to the spirit of prescience or prophecy, such organizations often become inoperative or extinct, but they must know that this discreditable result is due solely to such men as themselves; to a violation of those honorable obligations which can only be fulfilled by the good faith and strength of character existing in those who voluntarily contracted them.

Every member of an Association or Society is justly and undeniably responsible, in part, for its vitality, development and efficiency. It is certainly neither generous nor just, in the practical operation of such an organ-

ization, that the avoidable as well as the unavoidable labors should be discharged by a few, while some continuously absent themselves, some passively attend, while others, inconsistently, either positively or negatively discourage discussions that constitute a chief object and value of such Associations.

There are many societies which are eminently successful, and many which linger painfully and die disgracefully. It will be found that the successful societies present prominent characteristics. Members attend faithfully, for they justly feel that, societies cannot compel attendance, but depend upon the honor of members, and their appreciation of obligations voluntarily assumed. Members speak often; if not voluntarily, at least when called upon. They work well for the society; after sessions, as well as during sessions. They are not always threatening to resign, if the aggregate judgment of their brethren differs from their own; or if rendering a true allegiance to the laws of the society interferes with their comfort, their present or prospective prosperity; or when the decision or action of a society is at variance with their wishes or expectations. Members of such societies are willing to receive as well as to indulge in occasional pleasantry. They do not insult members, or assume that what would be pleasantry from a senior to a junior member becomes, when this is reversed disrespect or insult. Again, these societies know how to manage society bores, and are always ready to control them. They do not allow them to destroy the peace, comfort, and vitality of their bodies, by interminable harangues, but, becoming inexorable in their mode of protection, they apply that invaluable parliamentary weapon, "the gag-law," of five minutes' speech—a terror to bores and a boon to associates. As much as possible of the Transactions are published, and, to have these satisfactory to members, the Secretary is required to have all debates fairly and impartially reported. He is not allowed to so emasculate the remarks of those with whom his relations are unpleasant as to deprive these remarks of all point and value, while the observations of those who may be his immediate friends are recorded with scrupulous but suspicious fidelity.

In addition, however, to the scientific and ethical advantages of such bodies, which commend them to general confidence and support, there are social and

personal reasons which should influence all. Such meetings usually, if not invariably, originate and develop valuable friendships; remove prejudices; awaken admiration, and increase that necessary respect, on which all enduring esteem is founded. Frequent interchange of personal and professional experience and opinion is almost always productive of beneficial and happy results. To the misanthrope and ascetic, these considerations may be valueless; but to those who prefer to think well of their associates, they are specially welcome and important.

The object of these pages is not only to indicate the advantages of association, but to remind the very many now working separately and apart, of the necessity for organization; to appeal to them to effect these organizations promptly; and, finally, to invoke that concert, harmony and fidelity of action which, in all important enterprises, are the harbingers of success.

Dr. Bell's Letters to Breckinridge.—The moral sense of the professional and general public has, during the past month, been severely shocked by a series of long letters which have appeared, in the leading daily paper of this State, over the signature of "T. S. Bell." These letters of Dr. T. S. Bell, of this city, are filled with personal and scurrilous abuse of Dr. S. P. Breckinridge, also of this city. Indeed, these letters are not only filled with scurrilous vituperation, but they contain but little else beside this. Such coarse personal insults coming from a very old to quite a young man, may, of course, be indulged in, *ad infinitum*, with physical impunity; what moral injury will inevitably accrue to Dr. Bell, as a man and as a physician, it is manifestly unnecessary to indicate. No one who has read these letters can fail to perceive, that Dr. Breckinridge was compelled to reply through the same daily paper, and that his answers, in chaste and temperate language, have been not only defensive, but have been characterized by the fairness of presenting to the public the criticisms which evoked Dr. Bell's attacks. Dr. Bell was unwise and rash enough to deliver a lecture upon a subject of which he manifestly and notoriously knew but little, "The Pre-Historic Ages of Scandinavia, etc.," and Dr. Breckinridge prepared criticisms of this lecture for one of the daily papers of this city. These criticisms were written in a vein of humorous satire and caustic pleasantry; they were, it is true, damaging to the peace and pretensions of Dr. Bell,

but they were certainly appropriate and just. If they accomplished the natural result of presenting the author of this lecture in a ludicrous position before the community, this fact was due, not to any malicious or unkind intentions on the part of the critic, but simply to an unavoidable notice of the many ludicrous elements of which this very ludicrous lecture was composed.

The style and manner of Dr. Bell's letters may be fully appreciated by a few extracts taken, at random, from them. He writes of Dr. Breckinridge, as being "guilty of the most lying, meanest vituperation, that a malignant and devilish mind could invent;" of his "eminent fitness for everything that is an outrage upon professional decency, usefulness, ethics, courtesy, dignity and honor;" that he "takes wing in search of taints, and gorges his vulturous appetite;" of his being "a maligner, a disgraced, convicted slanderer and falsifier;" that "vermin have no choice in matters of this kind," etc., etc. Comment is unnecessary.

The editor congratulates himself, that Dr. Bell was removed from the list of associate editors, before these letters were published, as it would have been painful to have any one connected with the Journal occupying such a position before the public.

It is a melancholy fact in regard to this associate editor, that the only two occasions on which his name has appeared in a journal with which he was associated, should be very unpleasant in character. The first was when his unfortunate pamphlet on "Scandinavia" was indulgently reviewed by the editor, and the last when his personal and scurrilous letters against Dr. Breckinridge require the censure and rebuke of the medical press.

Resignation.—The editor, on account of the arduous and increasing labors requiring his attention, has resigned his professorship in the Kentucky School of Medicine.

In consequence of the sickness of Mr. Holloway, in June, the Journal was not, as usual, mailed prior to the 4th of the month.

Advertisements.—The attention of readers is directed to the advertisement of Messrs. Tardy & Co., in this Journal. The information given is valuable and strictly reliable. The reputation of Dr. Cabell is too well established to need support.

IMPORTANT NOTICE.—The editor has made an arrangement with the chief American Publishers, with Druggists and Instrument makers, whereby all physicians can be supplied, through the editor, with books, medicines, instruments, etc., at the lowest prices charged by the best houses for these articles. All orders, accompanied by the money necessary, will receive prompt attention. See valuable catalogue in the advertising pages.

THE editor has been particularly requested to state, that it was Dr. S. H. Dickson, of Philadelphia, and not Dr. S. Jackson, of that city, who informed him that Dr. Jackson did not buy up or cancel the edition of his work on "Principles of Medicine," in consequence of Dr. Caldwell's strictures upon the work mentioned. This second notice is published to gratify an old and distinguished member of the profession.

IN consequence of the sickness of the editor in April, the proof-reading for the May Journal was entrusted to "new hands." They did very well under the circumstances, but there are errors of consequence which should be corrected. On page 504, for apnea read apnœa; on page 507, for stones read stone; on page 508, for chronic spasms read tonic spasms; on page 509, for ceratum cantharides read ceratum cantharidis; on page 509, for for opii tinct. ℥j to be thrown into the rectum every two hours, read ℥j.

NO CARDS of specialists will in future be published in this Journal. The American Medical Association has declared against it, and for the very reason that the Association has no means of enforcing its decisions, are these more promptly respected.

THE demand for the Craig misroscope is such, that the manufacturer cannot promptly fill the orders sent to him. All orders, however, will meet with the earliest possible attention. There may thus be a delay of two or three weeks; not more.

IN the June Journal, the Nashville University was inadvertly classed with the cheap schools. The error is promptly acknowledged and is regretted.

Readers will also be repaid for reading the advertisement of Messrs. Grimault & Co. To introduce these medicines, they are willing to distribute samples gratuitously. The list of medicines is varied and interesting in character, and all who wish to give fresh, well endorsed and well prepared medicines a fair trial, will have an opportunity of doing so.

There is no advertisement which is more worthy of examination than that of Mrs. Milligan. She has filed with the editor testimonials from many physicians, and from ladies whose certificates are eminently entitled to respect and confidence.

Attention is directed to the substitute for quinine, made by Messrs. Nichols & Co., of Boston. The cincho-quinine is being fully tried, and so far the testimony is interesting and worthy of respect. The manufacturers will furnish samples, and circulars giving particulars.

The advertisement of Messrs. Darby & Co. will also repay investigation. No preparation before the public is better recommended and commended. The certificates given are from eminent and well-known physicians.

BOOKS AND JOURNALS RECEIVED.

Outline of Observations on Hospital Gangrene, as It Manifested itself in Confederate Armies, 1861-5. By Joseph Jones, M.D., New Orleans, La., 1869. From author.

Surgical Cases. By David W. Cheever, M.D., Howard University. Boston, 1869.

Action of Anæsthetics on the Blood-corpuscles. By J. H. McQuillon, M.D., D.D.S., Philadelphia. Compliments of the author.

Regulations of the Biological and Miscroscopical Department of the Academy of Natural Sciences of Philadelphia, Pa.

Proceedings of the State Medical Society of Michigan, 1867-1868.

Nature and Time in the Cure of Diseases. A Dissertation, for which a prize was awarded to James F. Hibberd, M.D., by the Massachusetts Medical Society, 1868. From the author.

Life of Valentine Mott, M.D. By Dr. G. S. Bedford, New York.

Report on Births, Marriages and Deaths in the State of Michigan, for the year ending April 5, 1868, Lansing, Mich.

Catalogue of the Jefferson Medical School of Philadelphia, 1868-9.

De la Resection de l'Articulation Coxo-Femorale Pour Carie. Par R. R. Good, M.D., Paris, 1869.

Anniversary Oration. Delivered before the Medical Society of the District of Columbia, Sept. 26, 1868. By J. M. Toner, M.D. Compliments of the author.

The Law of Human Increase. By Nathan Allen, A.M., M.D., Lowell, Mass. Compliments of author.

Monograph on Hæmorrhagic Malarial Fever. By R. Fraser Michel, President of the Medical Association of the State of Alabama. 1869. Compliments of author.

Ulster Medical Society; Inaugural Address of the Session, 1868-69. By James Cuming, M.A., M.D., L.K.J.C.P. Belfast. 1868.

Practical Suggestions for Making and Inhaling Nitrous Oxide. By A. W. Sprague, A.M., author of Elements of Natural Philosophy, etc. Boston.

Twentieth Annual Announcement of the Woman's Medical College of Pennsylvania, 1869-70.

Embolism. By S. D. Seelye, M.D., of Montgomery Ala. Compliments of author. 1869.

The Pathological Anatomy of Surgical Stumps. By I. F. M. Chaurel, M.D., Director of the Imperial School of Medicine and Pharmacy at Military Hospital Val-de-Grace. Translated from the French by B. E. Cotting, M.D. 1869. Boston.

SUPPLEMENT.

E. S. GAILLARD, M.D., Professor of General Pathology and Pathological Anatomy in the Kentucky School of Medicine; Professor of Physiology in the Cumberland University at Nashville, and Professor of some Virginia School. By T. S. BELL, M.D., Professor of the Science and Practice of Medicine in the University of Louisville, Ky.

Under this caption, Dr. Bell has had published, in the Nashville Journal of Medicine and Surgery, for June, twenty octavo pages of personal and scurrilous abuse of the editor of the Richmond and Louisville Medical Journal.

Two years ago, the Nashville Journal was expunged from the list of exchanges, because it was not considered worthy of such a position. Two months ago, Dr. T. S. Bell's name was expunged from the list of associate editors, because he was no longer considered worthy of such a position. That Dr. Bell should write twenty octavo pages of scurrility, and that it should appear in the Journal mentioned, is a coincidence which is suggestive of a most worthy and appropriate coalition.

Dr. Bell's gray hairs should make him venerable; his public professions of religion should make him a worthy exemplar. These gray hairs are, however, on all possible occasions, dishonored, by a scurrility which is as characteristic, as it is notorious; and these professions of religion have for years been a reliable shield to protect him, in his coarse impertinence, from a personal accountability.

It may be asked how Dr. Bell could have ever been tried as an associate editor. The editor's reply must be that of Beau Brummel, when he cast aside a soiled and crumpled necktie which he had selected, without judgment—"this is one of my failures."

It will be remembered, that, in the April number of this Journal, there was published a review, by the editor, of a pamphlet on "The Pre-Historic Ages of Scandinavia and the Lacustrine Dwellers in Switzerland. By T. S. Bell, M.D., of Louisville, Ky.," etc. This review was not only courteous in every respect, but it was, even cen-

surably indulgent. Twenty pages of abuse, commingled with puerile criticism and many false statements, made to wound and injure personal character, constitute Dr. Bell's reply. In regard to the personal abuse, the editor will not attempt to reply. Scurrility is a field which he has never entered, and one to which he expects ever to remain a stranger. He is willing to confess himself, in advance, vanquished, in any possible encounter, occuring in a field wherein Dr. Bell is so entirely at home, and where the editor is willing to acknowledge him to be *facile princeps*. In regard to the puerile criticisms and the false statements made by Dr. Bell, it is proper to make some reply. This reply will not be made in the pages proper of the Journal, for two reasons: one is, that the editor has no right to appropriate the pages of the Journal for such a purpose, and the other is, that he is not willing to introduce matter of no possible scientific interest into the body of a work which he has endeavored at least to make scientific in character.

Dr. Bell deprecates the review of his pamphlet and protests against it in the following words: "There was nothing in my lecture (a pamphlet of sixty closely printed octavo pages) that justified a medical editor in occupying space in his Journal with a reference to it." With such convictions, conspicuously confessed, Dr. Bell does not hesitate to occupy twenty-five per cent of the Nashville Journal with remarks in regard to the same pamphlet which, according to his own account, was not worthy of notice in a Medical Journal. It is not the intention of the editor, however, to pass by this protest, without a definite reply. Dr. Bell, with a few others, (some his satellites, and some actuated by reasons unnecessary to mention), wishes to have it understood, that the editor of this Journal deviated from the legitimate path of criticism to strike him a severe blow. The reply is simple. Such an object would not repay one for the trouble. The material of Dr. Bell's pamphlet was laboriously prepared by a medical man, for a medical audience, and was presented in a medical Institution. To claim that such material is not a legitimate subject for review in a medical Journal, is either puerile, or it is to acknowledge that the material was unworthy of a medical man, of a medical audience, of a medical Institution and of review in a medical Journal. In addition, however, to the facts already given, which would, of themselves, justify such a

review, Dr. Bell was considered a man of great pretension in scientific and general literature, and it is the custom of the Press, under these circumstances, to take the measure of such men for future reference.

Dr. Bell abuses this Journal and its editor most admirably, and as Solomon says, it is the part of a wise man to change his opinions, the editor will give Dr. Bell one of the few opportunities, possible of showing this wisdom; that is by comparing Dr. Bell's past opinion, as expressed in the chaste and grammatical phraseology of his letter, with his present opinions, as given in language equally entitled to admiration and respect.

LOUISVILLE, April 16th, 1868.

Professor E. S. GAILLARD—*Dear Sir:* I received your *flattering* request to become one of your corps of laborers in your *excellent* Journal a few days since and should have answered immediately, but for the fact that you failed to sign the letter and I waited in order to get your Christian name. Having just obtained this from our *common* friend, Prof. Holloway, I now answer cordially *in assenting affirmative.* Yrs. hopefully and very respectfully,

T. S. BELL.

Here Dr. Bell is flattered in being asked to be associated with a Journal, for which and for whose editor in his personal, professional and editorial character, he can not find sufficient words of abuse, in a vocabulary confessedly copious and infinite. Dr. Bell may plead that he has changed his mind, and has so become entitled to the wisdom which Solomon describes, but be it recollected, Dr. Bell did not change his mind until the editor had weighed Dr. Bell in the balance and concluded that he could not really *flatter* him any longer. It is true, Dr. Bell may urge that, at the time mentioned, (April, 1868,) he knew nothing of the editor of this Journal, but if so, how could he truthfully have said that the work was "excellent;" or that he felt so flattered by the association requested, as to "answer cordially in assenting affirmative." This language is worthy of criticism; its beauty and force can only be described adequately, by quoting from the classic phraseology of Dr. Bell's chosen and appropriate companion, Dr. W. A. Bowling, editor of the Nashville Journal, "it is splendid, copious and unique." This language will be remembered as occuring in that masterly

piece of composition "the Announcement of the Nashville University, for 1867," wherein Dr. Bowling, (to use a part of his eulogy on one of whom he is now so notoriously fond, Dr. Joseph Jones,) was so "modest, unassuming, high toned, eloquent and famous." That classic, memorable circular; a part of which the reader will pardon the editor for embalming; recognizing the fact, that in so doing, its author is also embalmed. The custom of the Egyptians in embalming for the tomb and of not expensively devoting these receptacles to solitary burial, but of placing together those intimately connected in life was not only economical, but convenient. The editor will adopt it. It may not be practicable to adopt this custom, as they did, in its physical manifestations, but it is manifestly a pleasing and appropriate method of disposing of the mental and moral remains of those who have suffered this kind of dissolution. In embalming Dr. Bell therefore, it is a charity to their acquaintances to embalm Dr. Bowling also, that, like two Egyptian mummies, whose cutaneous corrugations have been purified and rendered savory, they may be laid in an expensive and honorable tomb.

Here is a specimen of the "splendid, copious and unique" diction of Dr. Bowling in his official circular: "Nor did we ever see a more attentive class than when Fort Negley, near the foot of which stands the college, was vomiting fire and smoke in a *manner forcibly to recall Bulwer's description of the last days of Pompeii.* A million of armed men have passed and repassed the college without seriously interrupting the even tenor of its way —it had been converted into a hospital, *but the lectures went on amid the dead and dying.* For two weeks before the battle of Nashville, it was the centre of a vast encampment and from its roof could be heard the strains (so notoriously trying to collegiate integrity—Ed.) of "Dixie" and "Who's been here since I've been gone," from the Confederate bands upon the adjacent heights; *still the voice of its ministering priests were not hushed, but in humble cadence mingled with the external uproarious discord.* We ask the four thousand specially, *who have worshipped at its altars like the exiled Israelite, amid the sore trials of the times,* to let their thoughts occasionally revert to *the Temple,* and to determine that its fires shall never be extinguished, but amid external gloom shall appear all the brighter, attracting from afar those in *search of light for*

the benefit of themselves and mankind. In old times, when there were but few books, and it was the business of the millions to understand what one man had written, it was the duty of the Professor to explain and expound to the class the texts of that book. In modern times, teachers make text-books, and explain what they have written to their classes, and sell the books to the students. It pays admirably; still a sensible student could not *help thinking* that the Text-Book maker ought to have made his book so plain, as not to need any explanation. *He* would think, what *he* could not do in his closet with his pen *he* could scarcely do in the lecture room with his tongue. "We say then, (as a compromise—ED.) *get a Medical Dictionary*—one is about as good as another, only medical terms multiply so rapidly that a medical Dictionary ought not to be more than a year or two old. *Hoblyn's is the best.* Any Dissector you can find in a book store—the Dublin Dissector is a good one. Wilson's Anatomy is good. Dalton's Physiology *Prof. Briggs* prefers. *Fown's* Chemistry is good and *Prof. Lindsley* endorses it. You will want more books afterwards, but these are all you will want to begin with, and as you progress in your studies, you will learn what you need.

"DIRECTIONS FOR STUDENTS.— *When* the boat or cars arrive at Nashville, *take hack, which will bring you and your trunk to the College for fifty cents—there is no necessity for a hotel bill—come right to the College like it was a hotel*, enquire for the Janitor, he will show you many boarding-houses," etc., etc.

Hospitable Dean—"*Come right to the College like it was a hotel.*"

Well may the mourners, the friends of Drs. Bell and Bowling, in seeing them (the Siamese twins of modern journalism) thus embalmed, with their immortality here secured, say, with Queen Gertrude at the grave of the *demented* Ophelia: "Sweets to the sweet; farewell."

What more appropriate epitaph can be inscribed to their memories, than the classic testimony of the English lyrist.

"They grew together
Like a double cherry; *seeming parted,*
But yet a union *in partition:*
Two *lovely* berries moulded on one stem;
So with two seeming bodies, *but one heart.*"

It is proper, however, to notice a few of Dr. Bell's criticisms. He states, in his unfortunate pamphlet on

Scandinavia, that the presence of the bones of extinct mammals coincidently with those of man, in the phosphatic beds near *Charleston*, *S. C.*, "point to an antiquity of man upon earth far beyond the narrow bounds that very crude notions about that myth called the Mosaic Chronology have asserted, notions founded upon prevalent conjectures of the ignorance of ancient heathens that revolutions in millenaries of years in man's estate, are fixed facts." The reader is asked to stop and examine this sentence of Dr. Bell, for, unless it is examined, no one can fully appreciate its exquisite beauty; brevity; classic construction; grammatical elegance, and conspicuous lucidity. It is a literary triumph which Irving may have envied, Addison have in vain attempted to rival, or Dean Swift have been powerless to criticise.

Is it not surprising that the author of such phraseology claims to be a master of the English language, and a critic who has demonstrated his right to admiration? Well may we say, in the satire of Job, "no doubt, but that ye are the people, and wisdom shall die with you." What Dr. Bell intended to express, was, that the geological phenomena mentioned subvert the teachings of the Mosaic Record. The criticism of the editor was, that such an argument was puerile and foolish. The possibility of the creation of man dating back to the period, when the mastodon, the megatherium, etc., were created, is totally subverted by the fact, that the fossils of these animals are found in the oolitic and earlier tertiary deposits, (the eocene and miocene), while those of man have not been discovered in any stratum previous to those that are most recent, the post pliocene and alluvial. The editor might have added, that these bones, upon which Dr. Bell relies to prove the *great* antiquity of man, occur in a bed which Agassiz states is of "recent" origin. Dr. Bell does not attempt to meet the criticisms made, but offers irrelevant statements in regard to facts well known to every tyro; that there are different views held in regard to the commencement of the Mosaic Chronology. While saying that he will make no reply to the criticisms demonstrating the folly of his argument, because the editor knows nothing of the subject, he not only endeavors to make the best reply in his power (as irrelevant and flimsy as this reply is), but he devotes the remainder of his article to criticising subjects innumerable, in regard to which he says the author is equally

ignorant. Such a course needs no comment. It tells the whole story.

This is the only part of Dr. Bell's article deserving of serious attention. The reader is now invited to examine, for his amusement, Dr. Bell's efforts as a critic of the English language. First, he says that the exprsssion "more demonstrable" is erroneous. "There can be no comparative in the case." The schoolboy can give him the rule applicable; the editor will give the illustration, for it is well to *teach* by example, as well as by precept. In that famous controversy of Dr. Bell with a distinguished ecclesiastic of this city, it was "demonstrable" that Dr. Bell was annihilated; but it is "more demonstrable," that this Divine was excusable, when, he said, in extenuation of the harsh language used by him towards Dr. Bell, that in dealing with an animal of good blood a silken string was sufficient to guide him, but that a cudgel was the only appropriate weapon for an ass.

With commendable diligence, Dr. Bell has exhumed a list of sentences, in which the editor, using the adverb "only," places it whenever it occurs in a sentence containing a verb and its auxilliary, between the verb and its auxilliary; or where there is in a sentence an auxilliary and a participle, placing the adverb between the verb and the participle. Thus "good teachers can *only* come;" "compensation can *only* be obtained." It will scarcely be credited that Dr. Bell regards this as a gross error. The editor was censurable enough, on one occasion of his life, to use personalities over an assumed signature, in a newspaper. Dr. Bell criticised this, and the editor, accepting him here as an authority, respected the criticism; but when Dr. Bell comes forward to criticise his phraseology, he will remind him of the anecdote of Apelles and the shoemaker. When this painter, according to the Grecian custom, exhibited his painting on the streets for criticism, the shoemaker criticised the shoes. Apelles respected the criticism, and acted upon it. On the next day, however, when the painting was again exhibited, the shoemaker, upon the presumption that if he knew how shoes were to be made he was therefore a famous critic, became foolish enough to offer his views in regard to the painter's style; this was so ludicrous and absurd, that Apelles made the son of St. Crispin contemptible for ever; turning upon him, he stung him with that invective which has become classic and immortal, "ne sutor ultra

crepidam," the shoemaker should always stick to his last.

Next, Dr. Bell is facetious over the editor's use of the word "conversely" and giving this quotation, "dogs were annually becoming larger or conversely," from the editor's text, says with great power "not a dog has ever become conversely annually." He closes his criticism with a statement, which, if calculated to provoke skepticism, can not properly here be refuted by illustration; this untenable statement being "there is not a conversely breed of dogs anywhere."

It may be well to say that in the last edition of Hippocrates, edited by a scholar of rare attainments, the manner in which the editor has used the word conversely is sanctioned throughout. Authorities innumerable could be given, but this alone is sufficient. Two more illustrations of Dr. Bell's powers as a critic and then the reader will be invited to consider other absurdities of Dr. Bell that are equally ludicrous and entertaining.

Dr. Bell next criticises the expressions "success and satisfaction," "useless and impossible," "ruinous and dangerous," on the basis that words are multiplied uselessly; one word including in its meaning its successor. It may be said that in the examples given, this criticism is not tenable, as the fact alleged can not be proved, but where such a peculiarity is manifest in phraseology, surely even the most superficially educated should know that there is sanction for it in all languages. Dr. Bell is a famous classical scholar and the editor knows, therefore, that when Dr. Bell made this criticism, he did so in the indulgence of that exquisite vein of humor for which Dr. Bell is no less notorious than he is for his indifference to ridicule. Who knows better than Dr. Bell, Cicero's satire upon Cataline: "abiit, excessit, evasit, erupit?" Who knows better than Dr. Bell, (who acquired so much credit in his famous revision of the Bible), the manner in which those of his age and recent record are described in scripture; physically he "is old and striken in years;" in argument he is "poor and needy;" in his vocabulary of abuse he is "perfect and entire, wanting nothing."

Next, however, Dr. Bell as a critic of English, surpasses himself. He says the sentence "there is discursiveness and irrelevancy; pleonasm and ambiguity" is all wrong; or, as he says in his critical and elegant phraseology, "there *is* all these is there?" The sension criticised by Dr. Bell was made by the editor in re-

gard to Dr. Bell's style. He does not deny the justice of it, but retorts with his usual force and elegance. Dr. Bell would say "there *are* discursiveness and irrelevancy," etc. As was before said, the grammar-school boy will give Dr. Bell the rules applicable here. The editor can only express his surprise that a great bible-revisionist, and one who of course says his prayers, is not better informed. A child familiar with the phraseology "thine is the kingdom, and the power, and the glory," etc., could not possibly make so stupid and silly a blunder. It would be amusing to make Dr. Bell a little more absurd in his new and successful roll as a critic, but the editor, though enjoying the recreation, can not give the time. Dr. Bell calls these errors, which he has so creditably exposed "Gaillardisms." Examined by the regular laws of criticism, they are so many compliments unintentionally bestowed. This famous critic says he has a great many more and will bring them forth. During his period of interesting and very manifest gestation, it may be well for him to be reminded before he brings forth, of the accident that occurred to the old goose that sat, by mistake, upon serpents' eggs. The eggs hatched sooner than the goose expected, and the person of the venerable old bird being disrespectfully and sharply invaded she abandoned her obstetrical labor, with soreness and precipitation.*

One can imagine the sincerity with which Dr. Bell wrote the following sentince after the close of his efforts as a critic of English—"As for myself I deeply regret that I do not know more than I do." Then, as though he had dealt too severely with himself, he adds by way of qualification, the silliest sentence in the English language: "There are few persons who do know more than they should." Is it possible to find one?

Dr. Bell, in his roll as a wit, is as admirable as he is in that of a critic. He says that if the editor could be bought according to the estimate of others in regard to him and sold according to his own estimate of himself, *a University could be munificently endowed.* Dr. Bell has not quoted from Charles Lamb with sufficient accuracy to be charged with plagiarism, while he has copied him sufficiently to lose all credit for this old and familiar witticism.

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*This figure of protracted sitting and the labors of the goose is not intended as a biographical personality.

It must be admitted that Lamb does not say anything about endowing a University, but this difference may be explained by recollecting the drift of Dr. Bell's thoughts, wishes and hopes. An endowment, however, by the means to which Dr. Bell alludes, is about as probable as that for which he daily hopes, and the endowment of one cent would be far more munificent than the endowment that is constantly *claimed* by the University which has the honor of numbering Dr. Bell among its distinguished and honored representatives.

This old witticism of Lamb has indeed been badly abused. It has descended from the library to the lecture room; from the lecture room to the newspaper; from the newspaper to the parlor; from the parlor to the nursery and from the nusery to Dr. Bell. Next to that old witticism of Lamb, about the pie, it is about the oldest and most familiar to children, whether young or old.

Dr. Bell is much worried about the fact that the editor was called, last year, to two Medical Schools. With the hereditary instints of one accustomed to use sharp pointed tools, Dr. Bell selects an expression familiar enough in trade but not known elsewhere. He terms the editor a "duplex professor." At the risk of exciting Dr. Bell's wit still further in originating adjectives not known in the English language, he will tell him that he has, during the past month, been called to two more Schools; to a large School East and to one West, while, so far, he is not aware that Dr. Bell has been called anywhere but to a School which has, on account of its low-fee policy, found it impracticable to obtain teachers residing elsewhere, and has, with great difficulty, been able to induce any one, even in this city, to accept a chair in its faculty. When Dr. Bell speaks of endowing Universities in such a way as to make an opportunity of offering the editor a piece of coarse insolence he must expect unpleasant facts to be told, and that the reply will not be written in specially flattering terms. If Dr. Bell is thereby placed in a position even more unenviable than that which he has recently occupied before the public in his University relation, he must recollect that he has provoked this reply and that the editor has only written a few plain truths, more of which he will write whenever forced to do so. Being no longer in any Medical School his mentioning facts connected with other Schools will no longer be purposely misconstrued by those whose interest it is to

do so. He will use his best efforts to obtain the truth and will always publish this without fear or favor. If Dr. Bell wishes to have any more unpalatable facts in this connection he has only to be again witty on the subject of endowing Universities. So much for Dr. Bell in his roll as a wit.

In science he has already exposed himself sufficiently, so that there is no necessity for adding anything in this connection. There is, however, one additional exposure that Dr. Bell has recently made, which is worthy of notice; particularly where he comes before the public with such large ventures and so little actual capital in science. He writes thus: "Scientific men who know what the are talking about and who have capacity to express themselves intelligently (the reader will note Dr. Bell's pleasant and polite style) are content to say that the laws of science applicable to the point prove that fossils are of great age." This is Dr. Bell's characteristic mode of demonstrating that the editor was in error when the editor stated (in replying to Dr. Bell's disquisition on those phosphatic materials in the famous "bed" near Charleston) that "fossils do not prove great age." The finest human fossils known are those in the British museum, in London, and in the Royal Cabinet in Paris. They are the remains of those who perished in Guadaloupe in the early part of the eighteenth century and afterwards buried by natural causes. Other proofs could of course be given, but this is sufficient.

Now for Dr. Bell in his roll as a physiologist. He states, in contrasting the editor's expression "digested or assimilated," that a neophyte in medical knowledge knows that if a thing is not digested it can not be assimilated. If Dr. Bell has ever the misfortune to be sick and unable to take nutriment in the usual way, any old woman will give him a few beef-tea lessons on this subject.

Even after the exposition that has been made of Dr. Bell's presumption in science, the editor fears that the public will be skeptical, when assured that Dr. Bell has actually undertaken to criticise the editor's essay on diphtheria. Strange as it may seem, preposterous as it is, it is actually true.

When the editor recollects that this essay was selected for the prize of the American Medical Association, in 1861*, but did not receive it, because (on account of the

*This fact, known to the editor for eight years, has never before been

war) the Association did not meet; that it was awarded the prize of the Georgia Medical Association, on the recommendation of their Prize Committee, this recommendation being written in terms of the most extravagant and untenable eulogy; that, with an empty treasury, the essay was ordered to be printed, Drs. Powell and Habersham being selected as the committee for this purpose; that it has been flatteringly noticed by the press, at home and abroad, in the ordinary bibliographical notice department, and that extracts have been frequently republished in the department of Journals for selected matter; that the only unfavorable criticisms have been made by (1st) Dr. Bowling, after his immortal circular was ridiculed, and (2d) by a young doctor, in New Orleans, who said in reply to an exposure of his ignorance, as a critic, that his countrymen, Virchow and Rokitansky, might hold views quoted in the essay, but that he had "his opinions;" when the editor holds letters of eulogy from gentlemen, in comparison with whom Dr. Bell is morally, mentally and professionally a microscopic pigmy; when it is recollected that Dr. Bell, prior to his criticism on the essay, had been removed from editorial associations with one, with whom he felt "flattered" to be associated; that his pretensions as an authority on Scandinavia and in elementary science had just been exposed, *the editor feels only amusement at Dr. Bell's absurd pretensions at criticism.* There are tempting opportunities to make him as ridiculous in his diphtheria roll as he has appeared in others, but as Dr. Bell was suffering from wounded vanity when he last wrote and not, as usual, from mental dyspepsia, he deserves sympathy in this connection, and not satire. Dr. Bell has suffered very much recently, and the editor can not forget the irresistible plea made for the old, in those touching lines,

"Pity the sorrows of a poor old man,
Whose trembling straits have brought him to your door."

The diphtheria absurdities of Dr. Bell will, therefore, be pardoned, "the sorrows of a poor old man," being accepted as an extenuation in this instance of his malevolent and pointless effort at criticism.

In whatever way Dr. Bell is examined in his pretensions to science, argument, criticism, professional pro-

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mentioned by him to any one. Prof. M. L. Linton, of St. Louis, was chairman of the Prize Committee.—Ed.

ficiency, or wit, he proves to be painfully insolvent; he draws checks, pretentious in character, novel in style and stupendous in amount on all these banks, but when examined, by the critical custodians of these Institutions, they are all returned to him, with the mortifying and invariable endorsement, "NO FUNDS."

Whatever Dr. Bell's accomplishments (and his few remaining admirers still cling to the now obsolete tradition of his being "very learned,") may be, they are evidently not those of the critic in science or general literature. He assumes, with Iago, "I am nothing unless critical," but while no one would be thus severe on him, it is evident that whatever else he may be, criticism is not the field in which he can ever gain any other crown—than one of thorns. His only instinct seems to be to try and inflict mischief; to wound; to gore; to soil and trample, but Dr. Bell must reflect on an old Roman aphorism which would be remuneratively considered by him, before he determines to continue the indulgence of his notorious instinct: "*Dat Deus immiti cornua curta bovi.*" God gives short horns to the mischievous ox. The *Bos** here described is proverbially harmless, and if it becomes necessary, he is managed in the literary field, as he is in the agricultural and pastoral; he is *branded, yoked with one a little older and placed under the lash.*

Dr. Bell, as a critic, is open to severe and just censure; in addition to the faults already exposed, his language, allusions, figures and attempts at wit, are all stained with vulgarity. Such expressions, too, as "costume," "rags," "spangles," stripes," "serving time at a trade," etc., are all suggestive of unpleasant antecedents, which, if respectably triumphed over, are not judiciously thrust upon the reader, who is asked at the same time, to accept Dr. Bell as the *ne plus ultra* of critics in scientific, sacred, classical and secular literature.

Dr. Bell is indescribable in his pretension to profundity of intellect and acquirement, while in his writings this is nowhere manifested. Now, a critic should make the best use of his material. To use a homely phrase, he should, like a tailor, always "cut his coat according to his cloth," and if he expects to receive support, his material and work should bear examination. Dr. Bell's material is suggestive of soiled remnants, with obsolete and coarse

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*Dr. Bell's nickname in Louisville.—ED.

figures worked in them; it is badly selected, badly cut and badly put together; it is made for some one, it is true, but the fit is *surprisingly* bad. The work, too, is badly pressed; indeed, he who pressed the work should have sent it back to the workman to have it altered and made respectable. Then the errand boy,* is soiled, sickly, and emaciated, having notoriously lost heavily in weight in two years.

To write seriously, Dr. Bell, in his excessive desire to defame, defeats his own efforts, by the constant manifestation of a vindictive and impotent temper. What the English Puritans did for the language of Christianity, what Scuderi did for the language of love, he has done for the language of criticism. By habitual exaggeration, he has made it mean, and by pointless repetition, he has made it feeble. Indeed, Dr. Bell has done for the labors of the critic what Falstaff did for the career of the soldier. By presumption, pretension, arrogance, conceit, vulgarism, by the mustering of worthless and ludicrous forces, by his pitiable spectacle after his first appearance as a swaggering volunteer on the field, he has made gentlemen blush that they wield the weapon which he has stained and degraded. When Dr. Bell, too, uses the language of foolish jest and familiarity to the editor, who once "*flattered*" him with association, the editor will reply to him, as did one who replied to Falstaff, after that worthy had been similarly but injudiciously "*flattered*"—

> "How ill white hairs become a fool and jester!
> I have long dreamed of such a kind of man,
> So surfeit-swelled, so old and so profane—
> Fall to thy prayers,
> And as we hear you do you reform yourselves,
> We will—according to your strength and qualities—
> Give you advancement."

So far, the editor has criticised Dr. Bell's article only in regard to those points which provoke merriment and ridicule, but in these, he has not seriously censured him, for no man should be censured for errors which are the result of either mental failure or mental incapacity. It is charity, and perhaps justice, to give Dr. Bell the benefit of the alternative mentioned; for he may have been as a writer once entitled to respect, but if so, that day has certainly passed. The writer believes the errors to be due to mental incapacity, though, he is willing to

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*The Nashville Journal.

so far defer to the judgment of Dr. Bell's friends, as to admit that mental failure may be the cause of the disaster.

A man may be spared from serious rebuke for the vices that spring from mental failure or incapacity, but he deserves public punishment for vices that spring from moral depravity. The editor has really spared Dr. Bell for his mental vices; but he deserves punishment for moral depravity. This moral depravity will now be freely exposed and the public will unquestionably inflict the deserved punishment.

On the evening of the 21st of May, the President of the Young Men's Christian Association dismissed an audience which had collected to listen to a lecture, from the editor, on the subject of Florida; he having been invited by this Body to deliver the lecture. The lecture was intended to be the last of the season. The audience dismissed was more than double in numbers those to whom the most distinguished gentlemen in America, (gentlemen, the superiors of the editor in age, in acquirements, and in lecture experience), have lectured in this city, both previously and subsequently to the occasion mentioned.

The President of the Association stated, that Dr. Gaillard was willing and ready to deliver his lecture, but the lecture committee had decided, as the inclemency of the weather had detained many and as the committee did not desire the lecture delivered to an audience of this size, that the delivery of the lecture should be postponed; that there would be returned to all who had purchased tickets the amount paid for them.

The amount returned to the entire audience is known only to the Treasurer of the Association, and he has not (as he has informed the editor) mentioned this amount to any one. The only complimentary tickets issued were eight to the lecturer and the usual tickets to the press. The committee adopted the course they have always adopted when any one was invited to deliver a lecture, for which an admission fee was to be charged. These facts, in relation to the Association have been given to the editor, with the expectation and desire that he should publicly use them.

As in so grave a matter, the editor would not wrong Dr. Bell in the slightest, he gives Dr. Bell's statement of the matter verbatim. A statement that a mean and despicable nature only could have conceived or executed.

In a former part of this notice of Dr. Gaillard, I expressed a fear that Richmond, Va., and Louisville, Ky., scarcely appreciated properly the great light they possess in Editor Gaillard. An event occurred in Louisville, on Friday night, the 21st of May, which relieves Louisville from the charge of failure in this important duty. She showed that night that she does appreciate the great Professor at his right value. The city has been *agonized* for a week with almost incessant drumming for a large attendance on a magnificent lecture on Florida, by Prof. Gaillard, before the Young Men's Christian Association. In an intimate acquaintance, for thirty-six years, with lectures in Louisville, I never knew of any approach to the amount of drumming used for Dr. Gaillard's lecture. Every pulpit in the city that was accessible to the Young Men's Christian Association was laid under contribution and the various pastors read to their flocks, from a written notice prepared for the occasion, calling attention to this grand, this coming event. The daily press teemed with notices of the prospective glory in reserve for Louisville, and placards of Dr. Gaillard, of Florida, of the Young Men's Christian Association adorned the walls of houses. And, as if the viand was not piquant enough, an attempt was made to whet the public appetite by a pepsine announcement, that the Gaillard-Florida lecture had already electrified the Peabody Institute at Baltimore! The parties engaged in this incessant din must, from the way they worked, have had some foreboding that they were engaged in up-hill labor. The uneasy, restless Peabody Institute lecturer pushed himself into the newspapers and gave the public a specimen of his gifts, in one of the most flagrant violations of the 6th Article of the Code of Ethics of the American Medical Association, with which any medical man ever damned himself. This seemed to give the Louisville public the measure of the missionary of the Young Men's Christian Association.

The eventful night come upon the Louisville people in its proper order. In the leading paper of the city, on the morning of the 22d, the morning after the *noche triste* of Dr. Gaillard, the city was roused with the following account of the wonders of the preceding night:

Dr. Gaillard's Lecture.

Masonic Temple was filled last night to hear Dr. Gaillard. The reputation of this gentleman as an able and entertaining lecturer suffered nothing, but on the contrary was much enhanced by his effort last evening. His audience realized what before it was told to expect, and we do not wonder that, when the Peabody Institute of Baltimore was founded, this gentleman was among the first six who were selected to lecture before it in compliance with one of the provisions of the noble philanthropist, its author. His discourse last night was listened to throughout with an attention that was highly complimentary both to the man and the matter. It was the most successful and remunerative lecture of the series which it concludes, and the Young Men's Christian have just cause to thank the good fortune which procured them the services of this learned, refined and popular gentleman.

This first-class notice must have glared on the unfortunate Professor, after his dreadful night, in a most unwholesome manner. It must have made him feel that this notice added insult to injury. The scene at the Masonic Temple on the night of the Gaillard lecture was, to "borrow the loan," as the Patlander says, of a Gaillardism, decidedly "conversely" to the newspaper record. There has never been, since the scene in the Arabian Nights Entertainment, a more perfect barmecide feast than that at the Masonic Temple on the night of the Gaillard-Florida lecture. In a hall capable of accommodating two thousand persons, there loomed up before the despairing gaze of Dr. Gaillard, about forty or fifty persons. I have heard no one estimate the number above fifty. As

the Peabody Institute lecturer surveyed the dreary prospect he must have felt, with Dick, in the farce of the "Apprentice," the loathsomeness of "a beggarly account of empty" seats. Milton preferred an audience that was "fit and few," but in the estimation of Prof. Gaillard, the fewness of the auditory rendered it unfit for him. The grand Professor crept away from the Masonic Temple to meditate upon the "vanity of human wishes," not in the style of Dr. Johnson, but in the humor of chewing the cud of disappointed vanity.

As the weary wheels of time rolled over the dreary prospect, the President of the Young Men's Christian Association announced that owing to the "inclemency of the weather" the lecture would be postponed, and the money refunded to those who had paid. A gentleman informs me that one dollar and fifty cents were refunded, the rest of the audience being, probably, dead-heads. The "inclemency of the weather" is fudge.

When carefully examined this statement is found to contain the following willful and malicious falsehoods: 1st. That the committee resorted to unusual modes of advertising. 2d. That there was an unwillingness to deliver the lecture. 3d. As to the size of the audience. 4th. As to the value of the audience pecuniarily to the Association. 5th. As to the number of those that Dr. Bell vulgarly calls "dead-heads;" and, 6th. As to the amount refunded. In addition, this statement contains what is far worse than a falsehood, an ingenious and despicable effort to create a false and ruinous impression, in regard to the action of the editor. Dr. Bell speaks of his "pushing himself into the newspapers;" see line 25 of his statement. The meaning intended by Dr. Bell to be conveyed by the text, context and general arrangement of this statement is, that the editor sought eulogistic notices or caused such notices to be written in regard to himself and his lecture. This could not be said directly, for Dr. Bell knew that it was a falsehood, but he used a dishonest and contemptible mode of creating this impression. Can the reader imagine what part of the code of ethics was "violated." Strictly speaking, the editor did not violate any portion of it, as the code of ethics has no jurisdiction whatever in regard to the relations of a journalist to a public Institution, but the violation *claimed* by Dr. Bell, was, that the editor had published, in a daily paper, a correspondence between himself and the Faculty of the University of Louisville. The University made charges, over its seal, that were decided by the largest medical Society of this city, to be unjust and untrue,* and decided

* Will it be believed, that these charges have not been withdrawn, though the Faculty, after the editor requested an investigation, accepted the committee as an umpire?--ED.

also, that the editor's replies to the charges made, were "defensive and blameless." (See Report in Evening Sun, of Louisville, June 19th, 1869.) In this correspondence, the editor replied to these charges in the following language: "I say, deliberately and responsibly, that the writer and endorsers of such charges are cowardly and pusillanimous falsifiers who have stained the official seal of a public Institution, by making it a shield for personal insult, which not one of them dares to offer me, over his private signature." *Dr. Bell wrote the letter in which the charges made were replied to in the quoted language given.** It should be said, that, "by a vote of the College (the Medical Society) Dr. Gaillard was justified in publishing the correspondence."—(Evening Sun, June 19th, 1869.)

It will be seen that Dr. Bell, in the two pages extracted from his article, is guilty of six falsehoods and of the intention to deceive the reader in regard to the meaning of the text, "the restless lecturer pushed himself into the newspapers in one of the most flagrant violations of the code," etc.

It should be said that Dr. Bell may have made the statement in regard to the editor's lecture, without inquiry, but if so, the act was reckless, base and infamous; if the statements were made after inquiry, they were falsehoods.

In what language can such conduct be correctly denounced. In 1855, Blackwood's Review published the following bitter and awful denunciation of the notorious Barnum, of New York: "No foul bird of prey, nailed to a barn-yard door, as a warning to its fellows, presents a more revolting and disgusting aspect, than does Phineas T. Barnum, in his publication before us." For fourteen years, the entire world has been unable to find any one who could be presented in challenge or refutation of this terrible declaration. The editor has been more successful; he presents Theodore S. Bell, whose record, as shown in the base statement published, is so vile, that, in comparison, the carcase of the foul bird of prey becomes sweet, and the character of even Phineas T. Barnum is made respectable.

The editor, of course, expects the vilest abuse possible, in the Nashville Journal, for August. He hopes this will come from Dr. Bell and his chosen friend, Dr. Bowling;

*But induced the Dean to sign it.--ED.

that it will be to use Dr. Bell's elegant expression a *duplex* retort; a double-barrel explosion. The editor, when a boy, was fond of hunting sparrows and acquired much skill in killing two at a shot. In his maturer years, it is only fair that he should be allowed an opportunity of enjoying his old recreation. He promises not to use anything larger than mustard seed shot; recollecting the old rule, that small game should have only small shot; such shot as he has thought sufficient for the present occasion. He is very fond of hunting birds and will be ready to take a sparrow hunt as long and as often as he is invited.

The editor expresses the hope that Dr. Bell will reap a satisfactory return from the several hundred pamphlet copies of his article, which he had issued for distribution, not only to his medical admirers, but to the laity in this city and throughout the country. If, however, these pamphlets are as much derided, and their author as much despised by the multitude to whom Dr. Bell sent them, as has been the case with the very many who have expressed their opinions to the editor, Dr. Bell will realize the truth of the damaging satire which Colonel Damas bestowed upon Beauseant: "Curse on, Monsieur Beauseant, but let me tell thee a proverb which the Arabs have: curses, like chickens come home to roost."

Eight months since, Dr. Bell was scarcely known out of Louisville; not satisfied with his obscurity, he came before the public to be admired; being not as admirable as he had expected and being *rasped* somewhat severely, he turned upon the instrument which cut him and tried to destroy it; how far he has done so or can ever do so, he must learn by a painful but a very ludicrous experience; he can only learn what injury he is capable of inflicting, by a continuation of an attack which he is pleasantly invited to prolong, for as many months as may suit his purse, his peace or his pleasure.

This charming little episode in the life of Dr. Bell, is so pleasingly illustrated by a fable of great antiquity, (one might say an almost pre-historic fable) that the editor takes the liberty of adding it as the finale to the present act of that charming drama which Dr. Bell, with an exquisite indulgence in fiction, has entitled BELL ON GAILLARD; a title suggestive of a disaster to the editor too monstrous to contemplate. The fable promised is that pleasing allegory of

THE VIPER AND THE FILE.

It runs as follows. A foolish old viper intruded into the establishment of a workman and made a great noise, with a view of attracting his attention. The workman, amused at the conceit and folly of the visitor, thought he would punish him, and so let a heavy file fall, with some violence, upon his back. The file bruised and cut more deeply than he intended, and the viper, expecting as usual to overcome its prey, seized it in its fangs, and, covering it with venom, endeavored to destroy it. The workman, whose sympathy had been aroused by the unexpected severity of his blow, now became amused at the rage and impotence that he witnessed. Smiling at the folly of the attack, he, with pleasant humor, quietly remarked; bite on, perhaps the longer you bite, the less you'll like it.

William Gibson.

THE RICHMOND AND LOUISVILLE

MEDICAL JOURNAL.

VOL. VIII. AUGUST, 1869. No. 2.

ORIGINAL COMMUNICATIONS.

"Qui Docet Discit."

ART. I.—KEYS TO THE ARTICULATIONS OF LOWER EXTREMITIES. By FRANK HASTINGS HAMILTON, M.D., of New York, Professor of Surgery in the Bellevue Hospital Medical College.

1. *Phalangeal Articulations of the Toes. Keys. The lateral ligaments.* The phalangeal articulations of the feet have essentially the same anatomical structure as those of the hands, only that the bones are shorter, broader, and their articular surfaces are especially much more expanded. Owing to the general practice, also, of wearing narrow shoes the joints are often deformed, and their motions very much limited. The lateral ligaments, as in the case of the fingers, constitute the keys to the articulations, but they are not exposed and cut with the same facility as are the lateral ligaments of the fingers.

2. *Meta-tarso-phalangeal Articulations of the second, third and fourth Toes.* In general, the same anatomical arrangements obtain here again, as in the corresponding phalanges of the hand, except that the joints are larger, more often deformed and partially anchylosed by lateral pressure. It will be noticed, also, that the toes cannot be flexed to a right angle with the dorsal surface of the

foot at the meta-tarso-phalangeal articulation, as the fingers may be in a corresponding articulation of the hand, and consequently the joint cannot be exposed and opened so easily on the dorsal surface.

Either of the two lateral ligaments constitute the keys to these joints.

3. *Meta-tarso-phalangeal Articulation of the Great Toe. Key. External (fibular side) lateral ligament.* The same argument applies to the use of the external lateral ligament as the key of this joint, as to the use of the external lateral ligament as the key to the meta-carpo-phalangeal articulation of the index finger.

4. *Meta-tarso-phalangeal Articulation of the Little Toe. Key. External (radial side) lateral ligament.* See meta-carpo-phalangeal articulations of index and little fingers.

5. *Tarso-meta-tarsal Articulation. Key. The flat dorsal ligament which unites the cuboid to the fifth meta-tarsal bone.* This is a complicated and irregular articulation, formed by the juxtaposition of nine bones. It is arthrodial in its character, its motions being limited almost entirely to the fullest flexion and extension, and an equally slight sliding motion upon nearly plane surfaces. Its ligaments, therefore, which cover in the whole length of its dorsal surface are close and compact, and neither present in themselves any guides to the articulations, nor do they allow the joints to open sufficiently to indicate their positions.

No one would think of entering these articulations from the plantar surface, since in this direction they are peculiarly inaccessible, and the principal flap must be made from this surface.

On the tibial, or inner side, occasionally not much difficulty will be experienced in finding the point where the meta-tarsal bone of the great toe articulates with the cuneiform internum. In most cases, however, the articulation cannot be easily traced.

It is only from the outer, or fibular side that the surgeon may approach this difficult operation with an assurance of success; employing as his guide the proximal end of the meta-tarsal bone of the little toe, which receives the insertion of the peroneus tertus and brevis. Lisfranc and Ziegler have seen the posterior tubercle of the meta-tarsal bone of the little toe, extending backward toward the heel, half and three quarters of an inch, and it has been even found, prolonged in this direction so as to articulate with the cuboid. In such a case the joint could not be entered from this point, except after first having sawn through the bone; but such abnormalities are rare.

The mode of procedure in amputation at this articulation will be then as follows: Commencing, in the case of the right foot, on the outer margin of the foot at the tarso-meta-tarsal articulation of the little toe, carry the knife across the dorsum of the foot in the line of a curve, with its convexity forward, and terminate this incision a little in advance of the tarso-meta-tarsal articulation of the great toe, or the inner side of the foot. This latter articulation is, in adults, about three quarters of an inch farther forward than the corresponding articulation of the little toe. Prolong the two extremities of the incision toward the heel, on the inner and outer margin of the foot about one inch in order to expose the articulation more fully. This is especially necessary on the outer side, so that the "key" can be the more easily found. Dissect up the dorsal tegumentary flap, thus formed, a short distance, and cut the tendons only at the base of this flap. Place the knife upon the outer margin of the foot, a few lines posterior to the tubercle on the proximal end of the meta-tarsal bone of the little toe, and cut with firm pressure the tendons of the peronei, and the muscular bundle which

forms the outer margin of the foot at this point. Now, the "key," namely, the flat dorsal ligament, which connects the cuboid with the last meta-tarsal bone, will be fully exposed. It is not necessary that it should be seen and recognized, for it can be certainly cut by carrying the knife from this point obliquely forward, over the top of the foot, in the direction of a line which continued would traverse the meta-tarso-phalangeal articulation of the great toe. The entrance of the knife into the articulation will be facilitated by bending the meta-tarsal bone toward the sole of the foot. From this point the knife must be held a little less obliquely across the foot, dividing the dorsal ligament binding the cuboid to the fourth meta-tarsal bone; and if the end of the foot is flexed quite forably the knife will, in the same line, enter the joint between the cuneiform externum and the third meta-tarsal bone. The knife will here be arrested by the meta-tarsal bone of the second toe, as it is prolonged backward between the external and internal cuneiform bones, like a tenon in its mortice. Its edge must, therefore, be directed backward towards the heel, and carried in this direction about two lines. The exact distance cannot be stated, since it varies in different persons; but great care must be taken not to carry the knife too far in this direction, but it should enter the articulation between the middle and external cuneiform bones. The next step of the operation is always difficult, namely, to enter the joint formed by the second meta-tarsal bone and the cuneiform medium. It is indicated faintly by two very slightly elevated transverse ridges, covered by a flat, smooth, shining ligament. Between these ridges the ligament presents the appearance of a transverse white line, and this is the line of the articulation, into which the knife must be made to enter. Having traversed this articulation, the point of the knife must be thrust deeply between

the inner (tibial) side of the second meta-tarsal and the outer side of the internal cuneiform bone—the back of the knife being toward the heel of the foot—and by depressing the handle, the blade will divide, not only the dorsal but also the internal interosseous ligament, lying very deep toward the sole of the foot, and which is in reality the strongest ligament connected with the tarso-meta-tarsal articulaion. The internal cuneiform bone is about half an inch longer than the middle cuneiform bone, consequently, the articulation of the first meta-tarsal bone with the cuneiform, internum about half an inch further forward than the articulation of the second meta-tarsal bone with the cuneiform medium. A knowledge of this fact will enable the surgeon to find, without delay, the tarso-meta-tarsal articulation of the great toe, which he will recognize, also, by the slight epiphyseal elevation at the proximal end of the meta-tarsal bone. The line of direction of this articulation is slightly oblique, so that in following it to the tibial side of the foot, the knife will incline a little toward the heel.

It now only remains to complete the section of the remaining interosseous and plantar ligaments, and to construct the plantar flap from the tissues upon the sole of the foot. This flap which is alone to cover the end of the stump, must include nearly all the integument on the bottom of the foot as far forward as the interdigital commissure; or at least to within one inch of this commissure. To insure also a proper size and form to the flap, it ought to be cut from the surface, and not from within out, and has been generally recommended.

I have thought it necessary to extend the description of this amputation made beyond what might have been required to point out its key, because a knowledge of this alone will not enable the surgeon to make a speedy disarticulation, and because in some of the subsequent

steps, as the careful student will observe, I have found it necessary to differ from the practice of Lisfranc, whose procedure had for a long time been accepted as the best which could be adopted. It will be especially noticed that I attach very little importance to the internal interosseous ligament, which Lisfranc regarded as the "key" to the articulation; indeed it was from his use of the term in this connection that I have borrowed it, and given to it a more extended application. If this ligament must be considered the key to this point, it has at least one great disadvantage. It is very difficult to find.

6. *Medio-tarsal Articulation. Key.* This articulation is formed by the astragalus and calcaneum on the one hand, and the scaphoid (naviculus) and cuboid on the other. Its character is essentially enarthrodial, and its motions although limited are quite distinct in all directions. The ligaments which immediately embrace the articulations are therefore not so short and compact as those of the tarso-meta-tarsal articulation, and the joint may be easily entered with a knife from almost any point except perhaps the plantar surface. The principal difficulty which the surgeon experiences is in finding a reliable *guide* to the articulation. The measurements made from the malleoli and from other points, vary so much in different subjects as to be wholly untrustworthy. The only guide which under nearly all circumstances can be relied upon is the inner (tibial) side of the scaphoid bone. This forms the only remarkable prominence on the inside of the foot below the ankle, and cannot be confounded with anything else, especially if we place the finger on this prominence and then alternately adduct and abduct the foot. We shall then observe that the only point of motion during this manipulation, is just above this prominence; that is, between the scaphoid and the head of the astragalus. I have never found a subject so fat,

or a limb so infiltrated with inflammatory effusions that the point of motion could not be distinctly defined, and that a knife could not be entered with certainty into the joint.

There are no ligaments on the inside of the foot between the astragalus and the scaphoid, and but one thin feeble ligament above, namely, the superior astragoloscaphoid.

Standing erect, the weight of the body falls to the inner side of the centre of the arch of the foot, consequently the foot is constantly inclined to be pressed or "splayed' outwards, and this would be its constant position, were it not for the powerful muscles whose tendons pass behind the malleolus internus, and for certain strong ligaments. These ligaments (for the muscles do not interest us in this connection) are the deep and superficial layers of the internal lateral or deltoid, belonging to the ankle joint. The deep layer passes from the apex of the malleolus internus directly to the astragalus. The superficial layer arises from the entire outer surface of the malleolus internus near its lower end and is attached in a fan shape to the astragalus behind, to the calcaneum below and by a broad flap, and firm band to the scaphoid in front. This latter fasciculus, namely that which attaches itself to the scaphoid bone, is the key to the joint.

The deltoid ligament is probably always ruptured in outward dislocations of the foot; and this will explain much better than Dupuytren's theory, the consequent and often permanent splaying of the foot outward. It is often strained in walking, in jumping, in dancing, &c., and in such cases the scaphoid seems to project unusually, or it becomes very tender in consequence of the inflammation developed in its periodical coverings at or near the poin of attachment of the injured ligament.

Operation of amputation at the medio-tarsal Articulation.

First step. Seize the foot with the left hand (in the case of the left foot) and enter the bistoury over the centre of the tuberosity, or most projecting point of the scaphoid bone on the inner side, and carry it across in the line of a curve with its convexity forward, terminating the incision at a corresponding point on the opposite side of the foot. Dissect up the dorsal tegumentary flap a short distance and divide the exterior tendons, &c., at its base. Prolong the incision on the inside of the foot a little toward the heel so as to uncover completely the key to the joint.

The object in making this first incision below the articulation forming thus a short flap which requires afterward to be dissected up to the point, is to insure a sufficient dorsal tegumentary covering; but the same end may be attained whenever the skin is not rendered too tense by swelling, by another and much more expeditious procedure. Thus the foot being held at a right angle with the leg, while an assistant retracts forcibly the integument above the line of incision, the knife may be entered at once into the astragalo-scaphoid articulation on the inside of the foot, and from thence be carried directly across to a corresponding point on the outside.

Second Step. Carry the knife across the articulation, while the foot is forcibly depressed, dividing the remaining dorsal and the interosseous ligament. This latter has again been called the "key" to this articulation, solely perhaps because it is a strong and somewhat inaccessible ligament, and its section is demanded before the articulation can be freely opened; but it is never divided in the first steps of the incision into the joint, and it cannot be considered therefore as the key of the joint in the sense in which I have employed the term. It is not situated at the gate or entrance to the articulation.

Having traversed the astragalo-scaphoid portion of the

articulation, if the foot remains at right angle with the leg, the knife will readily enter and pass through the calcaneo-cuboid portion nearly in the same line in which it has hitherto been carried. But in general it is found more convenient to depress the foot in order to open the joint more freely, and in doing so the calcaneum is made to project a little forward, and the edge of the knife must be inclined forward and carried through to the sole of the foot in this direction.

The plantar flap must be very long, and great care must be taken that it has sufficient breadth at its base. In order to secure this latter end, it ought always to be made by cutting from the surface, and not from within out.

In the description which I have given of this amputation, I do not claim that I have modified materially the original plan of Chopart, but I have sought especially to throw some additional light upon the most important point, namely the manner of entering the joint. I do not esteem the operation very highly, and from all that I have seen of its result, I am not disposed to recommend it, unless it may be in some very rare and exceptional cases. I may say indeed that it is about the only amputation which I have never yet made upon the living subject.

7. *Tibio-tarsal (ankle joint) articulation. Key. Internal lateral, or deltoid ligament.* The tibio-tarsal articulation is ginglymoid. It admits of no lateral motion; the astragalus being compactly wedged between the two malleoli. The external malleolus is longer than the internal. The articulation is supported and its luxation prevented by its capsule, its ligaments, the two malleoli and the tendons and muscles which pass to the foot. Its capsule forms the most inconsiderable portion of this support. The muscles and tendons have their origin and attach-

ments too remote to be of much service in this regard. Except that the two strong tendons passing through the groove immediately behind the malleolus, when in action, contribute materially to the prevention of a luxation of the foot outward. The two malleoli are very important supports to the joint, and this is especially true of the outer malleolus. There is no posterior ligament to the articulation. The anterior ligament is broad, long and thin. The external lateral ligament is composed of three rather narrow and not remarkably strong fasciculi. Finally, the internal lateral ligament, (deltoid) which I have already described particularly in connection with the medio-tarsal articulation, is broad and strong and constitutes the chief support of this articulation.

This ligament is, therefore, properly the key to this articulation, quite as much as to the medio-tarsal articulation; and not only because it is the strongest ligament, or that which most especially retains the bones in place, but also because owing to the relative shortness of the malleolus internus, it is more accessible than the external lateral ligament, and being composed at its origin of one continuous bundle of fibres, while the external lateral originates at three distinct points of the malleolus, it can for this reason be more easily divided. It has an advantage over the external ligament, moreover, in the fact that the malleolus internus being shorter, a section of the internal ligament, near its origin, enables the surgeon to carry the knife more easily to the top of the astragalus, and thus to complete the disarticulation.

The following is the method which I have preferred in this amputation:

First Step. The foot being held in a position of extreme xtension, the point of the bistoury is introduced half an inch below the centre of the lower end of the malleolus internus, (in the case of the left foot) and from thence it

is carried over the top of the foot, in the line of a curve having a slight convexity downward, to the anterior margin of the lower end of the malleolus externus. The object in commencing this incision half an inch below the malleolus internus is to preserve the symmetry of the transverse incision; and by terminating the incision, also, a little further forward, to secure so much additional width to the base of the posterior or plantar flap. Upon the inner side, I prefer to carry the incision farther back, that I may expose the deltoid ligament more freely to the knife. The knife, while traversing the top of the foot, may be pressed sufficiently firmly to divide the tendons and all the tissues down to the bone, including the anterior ligament and the capsule.

Second Step. The leg being elevated and the foot flexed to the right angle with the leg, the bistoury may be placed firmly upon the point where the first incision commenced, and from thence be carried across the bottom of the foot and be made to terminate where the first incision ended upon the outside of the foot, cutting to the bone along the whole length of this incision. The line of this second incision ought not to fall vertically from the malleoli, that is to say, not at a right angle with the sole of the foot. This would give a redundancy of flap; it would increase the danger from sloughing and render its detachment from the calcaneum more difficult. It is better to carry the lines of incision from the two malleoli a little backward, so that the knife will cross the bottom of the heel about one inch and a half farther back; and in the case of an unusually long heel it will be proper to carry the incision backward two inches, and possibly in some cases, even more than two inches from the vertical line.

Third Step. Expose the end of the malleolus internus fully and introduce a strong, sharp bistoury half an inch below the malleolus, with the edge directed outward, to-

ward the bone, and a little inclined upward toward the lower end of the tibia, being careful not to project its point so far as to wound the posterior tibial artery, and then, while the foot is forcibly abducted, cut firmly, and with a slight sawing motion. This will sever the deltoid ligament and open the joint freely.

Fourth Step. The practice has been hitherto, in persuance, I think, of the advice of Mr. Syme, to separate the lower flap from the calcaneum by dissecting from the bottom of the foot, a method of procedure which I have found tedious and difficult. I prefer very much to make this dissection from above. Putting the foot again into a position of extreme extension, the knife will divide the external lateral ligaments, and by forcing the foot down, the joint will be easily entered and the dissection continued backward over the top of the calcaneum toward the tendo Achillis. The operator will find it necessary to discontinue, occasionally, the backward dissection, and to loosen, alternately on the right and on the left, the attachments of the integuments to the sides of the calcaneum, using great care now that by keeping close to the bone behind the malleolus internus, he does not wound the posterior tibial artery before it has given off the internal calcanean arteries. These arteries supply the integument and cellulo-adipose tissue which compose the posterior flap. Division of the posterior tibial at a point lower than this, does not, as has been affirmed by others, endanger the vitality of the flap, inasmuch as it receives no arterial supply from a lower source. Caution must also be used in dissecting backward, over the top of the heel bone, especially where the tendo Achillis is attached, to hug the bone closely, and thus to avoid all danger of opening through the integument.

Fifth Step. Expose the two malleoli thoroughly, and saw them off on a level with the lower articular surface

of the tibia, using great care again not to wound with the saw the posterior tibial artery. It is not necessary, nor is it useful, to remove any portion of the lower articular surface of the tibia, unless it is diseased.

If, after securing the arteries, any of the tendons are found projecting very much, as if they had been lacerated, cut them off close to the point where they emerge from their sheaths; but do not, for this purpose, draw them down forcibly. In retracting, their divided ends are carried up, and the danger of suppurative inflammation in the synovial canal is increased.

I have not found it necessary to establish an opening through the flap to secure drainage, but if this were deemed necessary, it ought to be made on the back of the stump, just opposite the point where the tendo Achillis was attached and where the tegumentary covering is the thinnest. A small, vertical slit at this point might be harmless. An opening through the thick integument of the middle of the flap is not sufficiently depending for drainage when the patient lies in bed and leaves a sensitive cicatrix in parts which are destined to support the weight of the body.

It seems to me proper to add in this connection that in all amputations of the leg at a point below its upper third, and requiring the employment of a tourniquet, I have been able to diminish the loss of blood by applying this instrument to the popliteal artery rather than to the femoral. My practice is to construct a pad composed of a cotton roller folded upon itself, so that it shall be three inches wide by four inches in length, and about two and a half inches in thickness. This is placed lengthwise in the upper half of the popliteal space, and the strap is buckled over the outer of this pad and across the thigh just above the patella. The frame of the tourniquet should be on the front of the thigh underlaid with a few folds of bandage

to prevent its injuring the skin. This will secure the artery perfectly and leave the motion of the leg unembarrassed.

7. *Knee joint articulation. Keys. Internal lateral and accessory ligaments.* The great size of this ginglymoid articulation, its great latitude of motion, its lack of either bony or muscular support in the direction of its circumference—together with the fact that it is destined to sustain the whole weight of the body, demand stronger ligaments and a more complicated arrangement of their fasciculi, than are required in any other articulation. Nevertheless the thinness of its exterior coverings, and the large size of its various anatomical parts, render it easy to determine the position of its articular surfaces, and to accomplish its disarticulation with the knife.

There exists, therefore, no very special necessity for determining what should be considered the key to the joint, since the most inexperienced surgeon would scarcely fail whatever mode of approach he might accept. It is rather then for the purpose of rendering complete this series of observations,and because I leave some useful suggestions to make in relation to the details of the procedure, that this description is undertaken.

The posterior ligament (of Winslow) is composed of broad, firm and decussant fasciculi, which cover in the whole back of the joint and embrace it closely. The anterior ligament is the ligamentum patellæ, broad and strong but resting loosely over the articulation except when under the control of the quadriceps femoris. Its division does not, therefore, facilitate the separation of the joint surfaces except as it opens the way to other ligaments. The external lateral ligament is composed of two distinct fasciculi, both of which arising from the outer tuberosity of the femur back of the centre of the joint are inserted into the head of the fibula. It is attached to,

and reinforces the capsule. The internal lateral ligament is composed of a single strong fasciculus, and is placed also nearer the posterior than the anterior face of the knee. It arises from the internal tuberosity of the femur and is inserted into the inner tuberosity and inner side of the shaft of the tibia. Its posterior portion is stronger than its anterior portion. The capsular ligament is thin but strong, being reinforced by fibrous bands from the fascia lata and from the vasti; but especially on the inner side does it receive increased support from these sources, insomuch that these broad and expanded fasciculi have been denominated the *ligamentum accessorius*. It will be observed now that a section of the internal lateral ligament alone will not open the joint, nor will a section of the accessory ligament and capsule alone open the joint, but a section of both including, of course, the capsule will open it freely. In these conjoined ligaments then we find the key of the articulation.

The crucial ligaments, anterior and posterior, are situated in the interior of the articulation, back of the centre and are not reached until the disarticulation is more than half completed.

Mode of procedure in amputation at the knee joint.

First Step. The leg being flexed to a right angle with the thigh, make an oval tegumentary incision around the upper portion of the leg in accordance with the following rule: Lay the upper face of the knife (single-edged amputating knife, with a six or seven inch blade) flat against the lower surface of both hamstrings, with its edge directed toward the back of the leg; and from this point proceed forward crossing the front of the leg about four inches below the patella, that is, about one inch below the anterior tuberosity of the tibia, and terminate the incision at the point of beginning behind the knee. In case of a large limb it may be necessary to drop the line of

incision one, or even two inches lower in the front, so as to increase the length of the anterior flap.

Second Step. Dissect up the integuments, including all the fat and areolar tissue, and in thin patients including even the sub-tegumentary fascia; expose the lower margin of the patella, and divide the ligamentum patellæ as near the patella as possible. Having entered the joint carry the knife inward dividing in one continuous incision the capsule with its accessory ligament, the internal lateral ligament and the internal hamstrings. Then divide in the same manner the outer half of the capsule, the external lateral ligaments and the outer hamstrings. The interarticular cartilages must remain attached to the tibia.

Third Step. Direct the assistant to flex the leg upon the thigh as far as possible, so as to bring into view the crucial ligaments. Divide these ligaments with the point of the knife, and cut slightly the posterior ligaments (of Winslow).

Fourth Step. Direct the assistant, to place one hand behind the knee and to draw the upper part of the leg forward so as to open the joint posteriorly. Introduce the blade of the knife behind the head of the tibia, with its edge directed downward in the plane of the shaft of the tibia, carry it in this direction two inches, then turn the edge directly backward toward the back of the leg and cut out.

If the knife is made to pass directly through the soft parts, posteriorly in the direction of the articular surfaces, the popliteal artery will be so drawn up and concealed in the upper angle of the wound that it will be difficult to seize it. Moreover, the directions which I have given for reaching the first incision, and which are necessary to insure a sufficient covering, imply the existence of a short posterior flap, the commencement of the

oval incision, on the back of the leg, below the hamstrings, being at least two inches below the head of the tibia.

The question whether the patella shall be removed in this amputation has been much discussed. The advantages in not removing the patella consist solely in the fact that the quadriceps acts with more power when it is retained. On the other hand, in consequence of being retained, the anterior flap must be from one to two inches longer; and this is rendered necessary for two reasons, first, because of the additional surfaces required to be covered, and second, because the quadriceps retains its full power to act upon the ligamentary flap and to displace it upward.

If the patient is in good health and the integuments which are to compose the flap are thick, vascular and in no way injured or diseased, and if the end of the femur is not very large, it may be proper to leave the patella in place, but if opposite conditions obtain, or if the flaps having been formed, it is found that they do not close easily and without force over the end of the femur, then the patella should be removed.

In removing the patella the surgeon needs to exercise some care to keep close to the bone, and not to remove or wound any portion of the adjacent soft parts.

Experience has shown that it is not necessary to excise the cartilage of incrustation. It undergoes, after exposure, rapidly certain pathological changes, and the flaps unite to exposed articular surfaces almost as speedily as union is known to occur in other wounds.

It only remains to tie the popliteal artery, and to close the wound by laying the long anterior flap over the end of the stump and securing it in place.

It will be observed that I have described, in so far as the form of the first incision is concerned, the oval oper-

ation of Baudens; but I have modified all the incisions in several points; and I have also attempted to render its description more precise than has been done, so far as I have been able to ascertain, in any of the treatises which profess to describe Baudens' method, without which precision, however, the results are likely to be very unfortunate, or at least unsatisfactory.

8. *Hip joint* (*coxo-femoral*). *Key. Anterior portion of capsular ligament.* The coxo-femoral articulation is enarthrodial—ball and socket—but its range of motion is considerably less than that of the shoulder joint, owing to the greater depth of its socket, and to the fact that its capsular ligament, especially in front, has less relative length, or redundancy. In fact while the head of the humerus is retained in position chiefly by its surrounding muscles, with their movable tendons, the head of the femur is retained in place exclusively by the elevated margins of the acetabulum and by its ligaments; to which may be added, the force of atmospheric pressure.

The round ligament seems rather designed to convey nourishment to the head of the bone, than to bind the the adjacent bones to each other, certainly its function as a ligament is very limited since it is capable of restraining the motions of the femur only in the extremes of adduction and abduction, and of its various other positions.

The capsular ligament arises from the outer margin of the acetabulum, and from the trasverse ligament, and from thence extending downward over the head and neck, it is inserted anteriorly along the anterior intertrochanteric line, and posteriorly it is inserted upon the neck of the femur a short distance from the posterior intertrochanteric line. It is thick and strong, especially above and in front where it is subjected to the greatest strain and pressure.

The ilio-femoral ligament is a strong band of fibres arising from the anterior inferior spinous process of the ilium, and which, as it descends obliquely forward and downward across the head and neck of the femur attaches itself to the outer surface of the capsular ligament, and finally to the anterior intertrochanteric line near the trochanter minor. It is, therefore, an accessory ligament to the capsular, designed to reinforce its anterior and inner wall.

If the anterior and internal portion of the capsule be cut, together with the ilio-femoral ligament, and the thigh be forcibly abducted and thrown backward, a dislocation is effected with great ease. These jointly constitute, therefore, the key to the joint.

Method of Amputation. A majority of practical surgeons have, I think, given the preference to some form of the anterior flap amputation. It is preferred by Querin and Malgaine, and during the late war most of our surgeons have adopted this method in some of its modifications. Few surgeons, however, have ever made a sufficient number of hip-joint amputations upon the living subject, to have determined in this manner the relative merits of the different modes which have been recommended. In the single amputation at the hip-joint upon the living subject which I have had occasion to make, for special reasons, a different method was chosen. Our appreciation of the different procedures must, therefore, be founded upon experiments made upon the cadaver; of this source of information I have availed myself; and, after having practiced all the plans recommended, many times, I have fully adopted the following modification of the anterior flap operation:

First Step. Supposing it to be the left limb which is to be amputated, the patient is placed upon his back, with the nates resting over the lower end of the table and

at the corner of the table on the side corresponding to the left side of the patient.

The thigh is then slightly elevated, (flexed), adducted moderately, and quietly rotated inward—this position having the effect of rendering the head of the femur less prominent, and, at the same time of carrying the femoral vessels and the anterior crural nerve more forward, so that the point of the knife can more securely pass between the head of the bone and the vessels.

The femoral artery being compressed by an assistant as it passes over the brim of the pelvis, the operator, holding in his right hand a straight, single-edged amputating knife, having a twelve or fourteen inch blade, introduces its point just above, and one inch in front of the trochanter major. The edge of the knife being directed downward, in the line of the axis of the limb. From this point the knife is made to penetrate transversely, and with a slight inclination backward, so as to strike the head of the femur in its upper half and near the upper margin of the acetabulum. By inclining the point, also, as directed, a little backward, the head of the femur will be struck rather upon its outer aspect, and not upon its most prominent and anterior aspect. The point of the knife having now entered the capsule, and penetrated slightly the head of femur, will be arrested. The handle of the knife being now raised toward the head of the patient, the point will descend over the head to the neck, cutting the capsule as it descends. Pressing the knife now across the limb, it will penetrate in front of the neck, under the anterior portion of its capsule. Then elevating the handle of the knife in the direction forward, as much as the skin and fascia lata will permit, and at the same time inclining the handle toward the head of the patient, the point, under steady pressure, will continue to descend under the ilio-femoral ligament, and the con-

joined tendon of the psoas magnus and iliacus internus, and finally emerge well back and below the tuberosity of the ischium.

With a sawing motion of the knife the surgeon enlarges the incision downward along the front of the trochanter major and neck, until sufficient space is made to allow a second assistant to introduce the four fingers of each hand into the anterior and posterior wounds and to seize the femoral vessels between his thumbs and fingers. The first assistant pressing upon the vessels over the brim of the pelvis, must not withdraw his pressure, until the second assistant has satisfied himself that he has the vessels in his grasp.

The surgeon then rapidly completes the section of the anterior flap, raising the edge of his knife a little to overcome the elevation of the trochanter minor, and carrying it down close to the shaft of the femur far enough to make a flap of from five to seven inches in length—more or less, according to the diameter of the limb, and finally bringing the edge of the knife to the surface obliquely.

Second Step. An assistant grasping the knee and leg rotates the thigh outward, while he forceibly abducts and carries it backward over the corner of the table and toward the floor.

If in the first step of the operation, the point of the knife has struck skillfully the capsule covering the head of the bone, the disarticulation may be accomplished by the manœuvre just described. In others cases it will be necessary for the surgeon to apply the knife to the capsule, and for this purpose a large scalpel is the most convenient—dividing the capsule first transversely over the most projecting portion of the head, and then longitudinally in the direction of the axis of the neck, and extending this last incision well down upon the neck. The round ligament, if not already torn, is then to be cut.

Third Step. The disarticulation being effected, the centre of the amputating knife is to be passed above the head of the bone, and the section of the parts posterior to the articulation completed by a sawing motion, the knife being made to emerge below in the gluteal fold.

The arteries having been severed, the large anterior flap is permitted to fall back, and is made fast with sutures and adhesive straps, the whole being secured by the roller.

Remarks.—If time is no element of consideration, no doubt the operation might be made with some less chance of hæmorrhage, by securing the femoral artery, just below Poupart's ligament, before commencing the amputation, as recommended by Valentine Mott, Delpech, Blandin, and others. Larrey advised to tie both the artery and vein; or it might be proper to apply to one or both of these vessels a ligature of reserve, which could be removed when the operation was completed.

The instructions given by Fergusson, and others, to introduce the point of the knife "about midway between the trochanter major and the anterior superior spinous process of the ilium, keeping it rather nearer the latter than the former," and then "run it across" in general, is unsafe. The point of the knife is in danger of passing above the head of the femur, and even of penetrating the belly and wounding the iliac artery and vein, and especially if we add to this error in introducing the knife the instructions geven by Querin to carry the point of the knife a little upward. This accident has actually happened with me in making the amputation upon the cadaver according to the rule given by Querin. It will be seen therefore that I have modified this steps of the operation. Certainly it may be awkward to dislocate if the operator strikes the capsular too low, but of the two evils this is much the least.

In the final incision, if we cut from without, that is, from the surface, holding the point of the knife at first directed perpendicularly upward between the thighs, it is very inconvenient to bring it downward and outward so as to sweep well around the thigh, on account of the proximity of the opposite thigh; and the operator is obliged, generally, to apply the knife two or three times to complete the section. All of this embarrassment is avoided when this incision is commenced, as I have directed, from above the dislocated bone; but greater care has now to be exercised in completing the section, that the knife falls exactly into the gluteal fold, and neither above nor below this point.

ART. II.—OLD DISLOCATION OF THE HEAD OF THE LEFT FEMUR INTO THE THYROID FORAMEN REDUCED BY MANIPULATION AFTER THE LAPSE OF ONE HUNDRED AND THIRTY SIX DAYS. By CHRISTOPHER JOHNSTON, M.D., Professor of the Principles and Practice ef Surgery in the University of Maryland, Baltimore. (Read before the Baltimore Medical Association, May 31, 1869.)

Although dislocations at the hip are now commonly reduced by the method of manipulation, I adduce the case in question, because of the interest which attaches to it on account of the length of time that the head of the femur had remained in its abnormal situation. The period, I am aware, has been exceeded in several cases upon record, and restoration has been accomplished by others as fortunate as myself; but every successful effort to replace the femoral head in the acetabulum, in an ancient dislocations increase confidence in similar attempts, and contributes to extend the period beyond which such endeavors are regarded as fruitless by the profession. I am fully aware of the reasons which influenced Sir Astley Cooper to fix his limits and to assert his conditions, and am

inclined with Professor Hamilton to believe that in general "Sir Astley's rule will continue to govern experienced and discreet surgeons;" but illustrative cases, whether successful or otherwise, may still serve as guides or as warnings, even though they may not fall within the conditions prescribed by the great English surgeon.

The case in question is of John Bars, a stone breaker, aged 42 years, well developed, unmarried and of temperate habits, who sailed from Bremen, on November 17, 1868, in the ship Bremerhafen. During a storm on the 29th of November, whilst moving about on the lower deck, he was struck by a falling chest on the ilium and trochanter of the left side. The ship regaining equilibrium, Bars was thrown astride against a post and received a second time the force of the chest upon the parts previously struck. The patient being unable to rise, was carried to his berth, where he was bandaged and rubbed with liniments by unprofessional hands which sought to allay the great pain he suffered in his groin. He reached Baltimore after a passage of 120 days; was urged to return to Germany and undergo treatment. Not following the advice of his consul, he entered the University Hospital on Saturday night April, 10th.

The patient presented on examination the following signs of dislocation of the left femoral head into the thyroid foramen:

The left leg was lengthened by two inches, its direction being forward and outward with the foot slightly inverted; and could not be moved toward the median line without great pain. The adductors of the thigh and the flexors of the leg, as well as the fascia lata and the gluteal muscles, were tense. The trochanteric protuberance was wanting; the trohanter could be felt at the bottom of a deep fossa. The head was vaguely discernible in its abnormal situation. Slight movements of flex-

ion and extension were possible, during which a dry crackling was perceivable. Small oblique hernia existed in the right groin. The patient walked on crutches, and appeared to be in good health and condition, although he bore the marks of the pain he had endured.

April 13th. Reduction of the dislocation was effected in the following way. The patient being under the influence of chloroform, it was ascertained that the head was slightly movable in its new situation. Then the leg was bent at a right angle with the thigh, and the thigh pressed upwards toward the chest to an extent exceeding the relation of forty-five degrees with the trunk. The knee was now swept over toward the right side while the foot, pushed outward, rotated the femur inward, and extension, with attempted adduction of the thigh, was followed by no result. After this failure to change the position of the femur, another attempt was made, during which the head slipped from the thyroid foramen under the edge of the acetabulum, and lodged on its posterior margin. The symptoms were merely those of dislocation into the sciatic notch.

A first effort to remedy this secondary dislocation by ordinary manipulation restored the head to the thyroid foramen, from which, however, it was readily made to resume its second position. And now, to prevent further wandering, the pelvis was fixed and sufficient traction made at the knee to steady the extended thigh; at the same time, the leg being bent at a right angle with the thigh, was pulled inward by the foot, so that the femur rotating the head slid forward into the acetabulum but without any snap. There was every evidence of the success of the operation; the length of the limb and its motions, its position &c., were entirely satisfactory—but the trochanter was very prominent as ought to have been the case when the acetabulum was filled up after having been so long vacated.

The patient's legs were attached to one another, and they and his body fixed to the bed with bands. In this position he remained for a week; for the same period the legs only were held; and for a fornight the affected leg alone was supported by ties. Great pain followed the operation but yielded to morphia, and for a fortnight no further bad symptom appeared; but after this period he had a severe chill followed by several minor ones; some fever set in, and the thigh swelled markedly. Fluctuation became distinct in front and on the outside, whereupon an incision evacuated a quantity of semi fluid blood.

It was afterwards ascertained that the rigors and swelling followed an unauthorized transfer of the patient from one bed to another, and that fingers pressed deeply into the tract traversed by the head from the thyroid foramen to the acetabulum. The application of a scultetus bandage gave support and comfort; subsequently a common roller was used, encompassing the whole limb and the pelvis; and now, on the 29th of May, Bars is moving cautiously about on crutches with a more receding trochanter, and increasing use of the hip joint.

I have, rather minutely, perhaps dwelled upon the circumstances of the case, but I trust I shall be pardoned in detailing the steps of the familiar method of manipulation, which was practiced by Hippocrates, and reviewed by successive surgeons, but by none with more point than by Prof. Nathan Smith, of Yale, as is shown in his medical and surgical memoirs published in 1831, by his distinguished son, Professor N. R. Smith, and by Dr. M. W. Reid, of Rochester, in 1851. The intesest of the case lies chiefly in the antiquity of the dislocation.

ART. III.—HOSPITAL GANGRENE: ITS TREATMENT WITHOUT ESCHAROTICS, SIMPLE, PAINLESS AND EFFICACIOUS; WITH RECORD OF AMPUTATIONS PERFORMED. By WM. H. DOUGHTY, M.D., Professor of Materia Medica and Therapeutics in the Medical College of Georgia, Augusta, Ga. (Read before the Georgia Medical Association at its recent session at Savannah, Ga., and reserved for publication by the author.)

If the practice of surgeons in hospital gangrene, be considered an index to their views as to its natural history and pathology, a single response, apparently intuitive in its character, is almost uniformly made to the inquiry, "How must it be treated?" "Burn it out" is the familiar expression of those who, although recognizing, to a certain extent, its constitutional features, yet act as if it could only be eradicated by potential caustics; nitric acid, chloride of zinc, sulph. copper, etc., constitute their armamentaria, and are freely used under the delusion that they are *necessary* to effect a cure. We may extenuate the employment of escharotics by remarking that, in some respects, they would appear a natural resort, and viewing the local sloughing and disorganization chiefly, an impulse (strengthened by, perhaps derived from, the analogous treatment of other malignant diseases having similar local complications,) is felt to the free use of cauterants almost as strong as the free and easy employment of quinine in intermittent fever. We apply them to malignant growths, anthrax, phagadæna and foul ulcers of every description, and why not in this apparently kindred affection? When does the analogy cease?

With such reflections, whilst unwilling to pronounce this course reprehensible, we are nevertheless induced to ask if this is the only available treatment? Is its measure of success, par excellence, so great as to demand its

uniform, universal and exclusive adoption? Are there no milder agents by which results equally good may be obtained? These are the points to which we would now advert.

All admit a constitutional element in the disease, and as readily agree, that no treatment based solely upon local applications, of whatever kind, can be safely relied upon. This constitutional element, whatever it be, should be the object of our jealous care, much more so for favorable results than the local sloughing; correct this, and the latter will soon be arrested and a granulating surface substituted; correct this, and the fear of pyæmia is dissipated; correct this, and the necessity for escharotics vanishes like the morning cloud. Unless this is done, all local treatment, whether by escharotics, disinfectants, stimulants, solvents, simple dressings, aye, even removal by amputation, is unavailing. The constitutional depravity is then to continue its spread, to produce its recurrence, and to predispose to blood-poisoning. Of the internal or constitutional remedies, iron, chlorine and mineral acids are the chief, and *when given under favorable hygienic circumstances are comparatively certain in their results.* Experience shows that few die of hospital gangrene, under all modes of treatment, unless some large joint or cavity or important blood-vessel be opened or pyæmia supervenes. With a fair allowance of a nutritious diet and fresh air the general tendency is to ultimiate recovery and not to death. The terror of its invasion, aside from the agonies which it directly inflicts, is in the disability which it entails, the simplest wounds being likely to leave the soldier permanently disabled for active duty in the field by reason of actual loss of substance and subsequent muscular contractions.

But important as this indication is, it cannot supersede proper attention to the local disorder. The dead tissues

must be removed; local inflammation, if it exists must be subdued, the foul breach must be thoroughly cleansed and kept so; its fetid emanations must be corrected; the whole concatenation of local circumstances tending to foster and perpetuate the disease must be broken up. How to do this is the question! Can escharotics alone do it? Are not milder agents preferable if the object is fully attained? We think so, and base the opinion upon our observation during the last year of the war, while in charge of the 2d Georgia Hospital, at Augusta, Ga. By reference to our notes, we find that between August 14th, 1864, and January 1st, 1865, twenty cases of hospital gangrene were treated in its wards in the following simple manner, with results as flattering as under any other heretofore employed. It embraced a thorough removal of the slough with the scalpel and scissors; cleansing with tepid water by mops and the continued use of *tar water* as a local disinfectant—this, conjoined with chalybeates, nutritious diet and free ventilation. Of this number, one died, who was over 50 years of age and worn out by privation and hardships, the disease occupying a large blister over the sacrum (which ought never to have been applied) its extent produced complete vital exhaustion. In only one case, was an escharotic employed—in this, there was a hard, indurated slough upon an inflamed base. It was deemed expedient not to use the knife for its removal as it was impossible to define the sensitive limits of the contiguous parts.

This is essentially a hygienic conservative, constitutional treatment in which local measures are subordinated to other agents intended to aid nature in the struggle against "destructive assimilation." It is not original, but how much more humane than that indiscriminate and agonizing of use caustics which condemns to torture the unhappy subject who thinks it the only chance, while, in

reality, it does not possess a single advantage over milder means. Even at this distant day, we recall painfully the terrible groans and agonizing screams (heard even in a distant camp), of brave men whose courage was equal to any danger, who could find no relief from the surgeon's fiery application save in their unrestrained outburst. It reminds one of the primitive practices in military surgery of pouring boiling oil into gunshot-wounds to make them heal. Escharotics produce pain, and pain disturbs the mind, prevents rest, and exhausts the nervous system; to this extent at least, they are injurious, and pain rightfully interpreted becomes nature's protest against their employment. When applied to the slough alone, they assist in dissolving or detaching it, but possess no advantage over the knife or scissors. The part is dead and the sooner it is removed without violence to neighboring parts, the better. Of course, when the deep structures of a limb are invaded the knife is ineligible, but this is true also of escharotics for they destroy the periosteum of the bones and injure the nerves and textures of important blood-vessels. To lay them aside for apparently less active means requires strength of purpose and courage to overcome prejudice and conventional usages, but we are happy to express our conviction that nature is fully adequate to her work in recovery from this scourge of armies with even less assistance (if we may term it so) than is supplied under the escharotic plan. We incline to the opinion that if, in a very large majority of cases, the surgeon became a mere spectator, (let me dignify it by saying a student of observation,) instead of a director, perhaps a pervertor, nature would most forcibly illustrate the recuperative power of those forces which it is the proper function of the profession to conserve. All that is said at the present day, concerning the "renewal of life," by the conservation of the vital or nutritive powers of the

system, finds here its most appropriate application. Nature declares that we must supply fresh air, support the patient with nutritious food, disinfect his loathsome parts, afford her time to appropriate the new materials, and in fifteen days or thereabouts, his convalescence will be established, and this, too, without a serious liability to its interruption. Fifteen days form the average length of time for the full arrest and separation of sloughs and, in the cases reported, there was no recurrence of the infection as frequently happens.

In harmony with this course was the employment of turpentine, locally and internally, by some surgeons during the war—the results were regarded as very favorable to its exclusive use in many cases, and we venture to remark that not the least advantage derived from it was the *exclusion of powerful caustics*. Turpentine is a good solvent for the putrid slough, hastening its separation, and stimulating within safe limits the adjacent parts, and when internally administered, exerts its peculiar beneficial effects (not very well understood) upon the blood in the low states of the system, and when aided by good diet and tonics is doubtless adequate to the cure of the disease.

Tar water, somewhat akin to this, contains soluble ingredients of the original substance in small quantities, particularly pyroligneous acid and creasote, and as a simple disinfectant is very valuable. Indeed, we found it scarcely inferior to Labarraque's solution, certainly not so offensive, and when assiduously used, it corrects the effluvia so thoroughly as to prevent the patient from detecting his own offensiveness.

This is only one of a class of remedies capable of fulfilling this important local indication—perhaps it is really not superior to the chloride of sodium, permangate of potassa, pyroligneous acid and creasote; *carbolic acid*, the

universal favorite and almost ridiculous hobby of the day, is probably the very best. Its power to arrest putrefactive changes, local and general, and to destroy the "septic germs" upon which the contagiousness and virulence of the foul malady depend, renders it peculiarly appropriate and determines its preferred use. Coal tar has been long known to be valuable as a disinfectant; this was employed during the war in hospital gangrene with excellent effect. Its active principle, carbolic acid, was not then available in a separate form, although Prof. Stillé states that "not a few have found that it less completely corrected, than coal tar, the foul odors of gangrenous parts, probably because its sustained operation is more difficult to secure."

Such, gentlemen, is the outline of a mode of treatment which commends itself on account of its simplicity, painlessness and efficacy. Some of the cases treated were severe, involving the tracts of balls through limbs and exposing large surfaces. They were not selected ones, but embrace all received during the time specified. We are indebted for the suggestion to Prof. Dugas, whose known conservatism tends always to simplicity in practice.

We append the following record of amputations performed for hospital gangrene, with their results:

Case 1. Private L. L., Co. C., first bat. Georgia sharpshooters; employed as nurse at field infirmary; hospital gangrene contracted by inocculation, affecting second and third phalanges of little finger; amputated at metacarpo-phalangeal articulation, August 12th, 1863; stump healed kindly; no recurrence of gangrene.

Case 2. Private W. J. M., Co. F., 41st N. C. regiment; received flesh wound (V. S.) September 19th, 1863, at Chickamauga; October 4th, gangrene reported, alternately exposing about five inches of tibia and fibula; constitutional condition so bad as to determine amputation at point of

election, below the knee, October 7th. Gangrene returned on 11th October. Died October 20th from pyæmia.

Case 3. Private J. W. W., Co. K., 30th Mississippi regiment; gunshot fracture of forearm and arm (right), received September 19th, 1863, at Chickamauga; both wounds gangrenous when admitted. October 8th, amputation through the deltoid. October 13, stump dressed and reported in good condition; October 14th, died at 8 A. M., in a protracted chill, doubtless pyæmic, although there was no appearance of gangrene about the stump.

Case 4. Private J. W. McC., Co. G, 18th Texas regiment; admitted with V. S. of right forearm (near the elbow) and arm (near the shoulder), received 19th September, 1863, at Chickamauga; both wounds become gangrenous with most extensive sloughing and intense constitutional depression; amputation at shoulder joint deemed expedient; performed October 13th; October 19th gangrene reported; died 25th from pyæmia.

Case 5. Private J. P., Co. D, 45th Mississippi regiment; gunshot fracture of forearm, ball entering near the wrist and emerging at the elbow; intense inflammation; threatening mortification. This was partially subdued by irrigation, when on 10th October, 1863, hospital gangrene appeared; on 14th amputated at middle third of arm; 19th gangrene reappears; 26th gangrene disappears; stump now granulating; patient subsequently furloughed.

Case 6. Private R. L. I., Co. C., 25th Georgia regiment, V. S., of left forearm and wrist, ball passing through the wrist-joint; gangrenous on 12 October; 16th October amputation at lower third of arm; infiltration having extended nearly to the elbow joint; October 19th gangrene recurred; October 27th it has disappeared again; stump in good condition; patient recovered and subsequently furloughed.

Remarks.—As far as these cases go, they authorize the following general conclusions, viz:

1*st.* After amputation for hospital gangrene, the almost uniform recurrence of the disease in the stump may be expected within seven or eight days. Possible exceptions exist in such cases as may be traced to direct inoculation (as case 1), where the general infection is presumably less.*

2*d.* In fatal cases pyæmia is the apparent proximate cause of death.

3*d.* Notwithstanding its recurrence, the mortality scarcely exceeds that from secondary amputations of equivalent parts in military surgery, the disease being still amenable to treatment.

4*th.* Amputation, therefore, may be regarded as an ultimate resource, in suitable cases, which promises something more than negative results; actually improving the chances of recovery in the face of a return of the disease. Hence is both legitimate and conservative.

Two out of the five major operations performed recovered, and when we remember that the conditions which determine the removal of a limb for hospital gangrene are even more desperate than those under which secondary amputations for wounds are ordinarily resorted to, the result really appreciates the practice.

It may be proper to state, also, that the patients were retained in hospital after being operated upon and subjected to the same general conditions of treatment as before.

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*NOTE.—We can scarcely regard case 3d as an exception to this rule, inasmuch as the fatal onset of the pyæmic state was very probably the precursor of the local development, the general infection, as it were, overwhelming the system before the local was apparent.

ART. IV.—CALABAR BEAN IN THE TREATMENT OF EPILEPSY. By F. C. WILSON, M.D., of Virginia.

In Nov., 1867, when on duty as house-physician at the epileptic and paralytic hospital, New York, after using with no very marked effect, all the remedies recommended in the treatment of epilepsy, the observance of the opposite effect upon the pupil, caused by an epileptic convulsion and by the calabar bean, suggested to me the use of the latter as a remedy for the former. Acting upon this suggestion, I obtained a limited supply of the tincture of such a strength that the dose was five minims. I then selected six cases; in which the convulsions recured at regular intervals every day or too, or several times a day. These were selected, not as cases favorable for a cure, but simply as best calculated to test the effect of the remedy. Its administration was followed by a marked diminution in the number of convulsions in each case; in several there occurring none at all for a period of two, or even three weeks. Several convulsions then occurred, followed by another interval of several weeks. The supply of tincture was exhausted before I could hope for a cure, but enough was used to see that it had a very marked effect in diminishing the frequency of the paroxysms. I have also had an opportunity of testing in three cases its power to stop a series of epileptic convulsions recurring in quick succession.

Case 1. E. M. aet. 20; an epileptic from early childhood and mind much impaired. I was called to see her after she had had fifteen or sixteen convulsions which recurred at intervals of eight or ten minutes, she being in the intervals entirely unconscious, and breathing stertorously. All the usual remedies, such as derivative applications to the lower extremeties; temporary ligation of the limbs; pressure upon the carotids; cupping, and also

application of ice along the spine; large doses of bromide of potassium, administered by injection, &c., were used without the slightest effect. After she had had fifty paroxysms, I simultaneously enveloped the head in snow, and gave hypodermically ten or twelve minims of the tincture of calabar bean. No convulsions occured, after that, but she remained for four or five hours, in a comatose state, her face livid, and lungs filled with a frothy mucus, which prevented the due æration of the blood. By the inhalation of air surcharged with oxygen this difficulty was finally overcome, and she was restored to complete consciousness.

Case 2. Susan V., aet. 23. epileptic from childhood and mind much impaired. I was called to see her in a series of convulsions very similar to those in case 1. Most of the same remedies were tried and the paroxysms only ceased at the sixteenth, after enveloping the head in snow and giving hypodermically ten minims of tincture of calabar bean.

These cases occurred at the epileptic hospital in December, 1867.

The following case occurred at Charity Hospital, New York, in February, 1869.

Case 3. F. B. aet., 24; Had never had epilepsy. I was called in consultation and found that he had been seized about a half hour previous with a well marked epileptic convulsion, followed by a second in about twenty minutes, he being, in the interval, entirely unconscious and breathing stertorously. The physician in attendance had already immersed the feet and legs in a mustard bath and had administered chloroform with no effect. Cups were also applied along the spine, and the head enveloped in pounded ice, the administration of the chloroform being still kept up. But notwithstanding these efforts, the paroxysms recurred at about the same

interval until they numbered six. I then injected hypodermically ten minims of tincture of calabar bean. The pulse, which had before beat 110, fell in ten minutes to 89, and the breathing became more quiet. In 20 or 25 minutes the pulse again rose to 95, and there was a little rolling of the eyes, but no more convulsions occurred, and in a half hour he dropped off into a quiet sleep, which lasted until morning.

In cases 1 and 2 the cold application to the head, and the calabar bean, were used simultaneously, while, in the last case, the calabar bean was used alone and after the cold had been applied without effect.

Although these experiments do not justify a conclusive opinion as to the value of the calabar bean as a remedy in epilepsy, still they are sufficient to recommend to the profession its further trial.

In the administration of calabar bean, it may be combined with strychnine, the antagonistic influence of the two enabling a much larger dose of each to be given, than would be safe if given separately. The efficacy of the two thus combined is enhanced just as in the combination of bromide of potassium and strychnine, or that of morphine and atropine.

ECLECTIC DEPARTMENT.

"Carpere et Colligere."

[REVISED AND CORRECTED.]

CODE OF MEDICAL ETHICS

OF THE

American Medical Association.

CHAPTER I.

OF THE DUTIES OF PHYSICIANS TO THEIR PATIENTS, AND OF THE OBLIGATIONS OF PATIENTS TO THEIR PHYSICIANS.*

ART. I.—*Duties of physicians to their patients.*

§ 1. A physician should not only be ever ready to obey the calls of the sick, but his mind ought also to be imbued with the greatness of his mission, and the responsibility he habitually incurs in its discharge. Those obligations are the more deep and enduring, because there is no tribunal, other than his own conscience, to adjudge penalties for carelessness or neglect. Physicians should, therefore, minister to the sick with due impressions of the importance of their office; reflecting that the ease, the health, and the lives of those committed to their charge, depend on their skill, attention, and fidelity. They should study, also, in their deportment, so to unite *tenderness* with *firmness*, and *condescension* with *authority*, as to inspire the minds of their patients with gratitude, respect, and confidence.

§ 2. Every case committed to the charge of a physician should be treated with attention, steadiness, and humanity. Reasonable indulgence should be granted to the mental imbecility and caprices of the sick. Secrecy and delicacy, when required by peculiar circumstances, should be strictly observed; and the familiar and confidential intercourse to which physicians are admitted in their professional visits, should be used with discretion, and with the most scrupulous regard to fidelity and honor. The obligation of secresy extends beyond the period of professional services; none of the privacies of personal and domestic life, no infirmity of disposition or flaw of char-

* Published at the request of many physicians.—ED.

acter observed during professional attendance, should ever be divulged by the physician, except when he is imperatively required to do so. The force and necessity of this obligation are indeed so great, that professional men have, under certain circumstances, been protected in their observance of secrecy by courts of justice.

§ 3. Frequent visits to the sick are in general requisite, since they enable the physician to arrive at a more perfect knowledge of the disease—to meet promptly every change which may occur, and also tend to preserve the confidence of the patient. But unnecessary visits are to be avoided, as they give useless anxiety to the patient, tend to diminish the authority of the physician, and render him liable to be suspected of interested motives.

§ 4. A physician should not be forward to make gloomy prognostications, because they savor of empiricism, by magnifying the importance of his services in the treatment or cure of the disease. But he should not fail, on proper occasions, to give to the friends of the patient timely notice of danger when it really occurs; and even to the patient himself, if absolutely necessary. This office, however, is so peculiarly alarming when executed by him, that he ought to be declined whenever it can be assigned to any other person of sufficient judgment and delicacy. For, the physician should be the minister of hope and comfort to the sick; that, by such cordials to the drooping spirit, he may smoothe the bed of death, revive expiring life, and counteract the depressing influence of those maladies which often disturb the tranquility of the most resigned in their last moments. The life of a sick person can be shortened not only by the acts, but also by the words or the manner of a physician. It is, therefore, a sacred duty to guard himself carefully in this respect, and to avoid all things which have a tendency to discourage the patient and to depress his spirits.

§ 5. A physician ought not to abandon a patient because the case is deemed incurable; for his attendance may continue to be highly useful to the patient, and comforting to the relatives around him, even in the last period of a fatal malady, by alleviating pain and other symptoms, and by soothing mental anguish. To decline attendance, under such circumstances, would be sacrificing to fanciful delicacy and mistaken liberality, that moral duty, which is independent of, and far superior to, all pecuniary consideration.

§ 6. Consultations should be promoted in difficult or protracted cases, as they give rise to confidence, energy, and more enlarged views in practice.

§ 7. The opportunity which a physician not unfrequently enjoys of promoting and strengthening the good resolutions of his patients, suffering under the consequences of vicious conduct, ought never to be neglected. His counsels, or even remonstrances, will give satisfaction, not offense, if they be proffered with politeness, and evince a genuine love of virtue, accompanied by a sincere interest in the welfare of the person to whom they are addressed.

ART. II.—*Obligations of patients to their physicians.*

§ 1. The members of the medical profession, upon whom is enjoined the performance of so many important and arduous duties towards the community, and who are required to make so many sacrifices of comfort, ease, and health, for the welfare of those who avail themselves of their services, certainly have a right to expect and require, that their patients should entertain a just sense of the duties which they owe to their medical attendants.

§ 2. The first duty of a patient is, to select as his medical adviser one who has received a regular professional education. In no trade or occupation, do mankind rely on the skill of an untaught artist; and in medicine, confessedly the most difficult and intricate of the sciences, the world ought not to suppose that knowledge is intuitive.

§ 3. Patients should prefer a physician whose habits of life are regular, and and who is not devoted to company, pleasure, or any pursuit incompatible with his professional obligations. A patient should, also, confide the care of himself and family, as much as possible, to one physician; for a medical man who has become acquainted with the peculiarities of constitution, habits and predispositions, of those he attends, is more likely to be successful in his treatment than one who does not possess that knowledge.

A patient who has thus selected his physician, should always apply for advice in what may appear to him trivial cases, for the most fatal results often supervene on the slightest accidents. It is of still more importance that he should apply for assistance in the forming stage of violent diseases; it is to a neglect of this precept that medicine owes much of the uncertainty and imperfection with which it has been reproached.

§ 4. Patients should faithfully and unreservedly communicate to their physician the supposed cause of their disease. This is the more important, as many diseases of a mental origin simulate those depending on external causes, and yet are only to be cured by ministering to the mind diseased. A patient should never be afraid of thus making his physician his friend and adviser; he should always bear in mind that a medical man is under the strongest obligations of secrecy. Even the female sex should never allow feelings of shame or delicacy to prevent their disclosing the seat, symptoms, and causes of complaints peculiar to them. However commendable a modest reserve may be in the common occurrences of life, its strict observance in medicine is often attended with the most serious consequences, and a patient may sink under a painful and loathsome disease, which might have been readily prevented had timely intimation been given to the physician.

§ 5. A patient should never weary his physician with a tedious detail of events or matters not appertaining to his disease. Even as relates to his actual symptoms, he will convey much more real information by giving clear answers to interrogatories, than by the most minute account of his own framing. Neither should he obtrude upon his physician the details of his business nor the history of his family concerns.

§ 6. The obedience of a patient to the prescriptions of his physician should be prompt and implicit. He should never permit his own crude opinions as to their fitness, to influence his attention to them. A failure in one particular may render an otherwise judicious treatment dangerous, and even fatal. This remark is equally applicable to diet, drink, and exercise. As patients become convalescent, they are very apt to suppose that the rules prescribed for them may be disregarded, and the consequence, but too often, is a relapse. Patients should never allow themselves to be persuaded to take any medicine whatever, that may be recommended to them by the self-constituted doctors and doctresses, who are so frequently met with, and who pretend to possess infallible remedies for the cure of every disease. However simple some of their prescriptions may appear to be, it often happens that they are productive of much mischief, and in all cases they are injurious, by contravening the plan of treatment adopted by the physician.

§ 7. A patient should, if possible, avoid even the *friendly visits of a physician* who is not attending him—and when he does receive them, he should never converse on the subject of his disease, as an observation may be made, without any intention of interference, which may destroy his confidence in the course he is pursuing, and induce him to neglect the directions prescribed to him. A patient should never send for a consulting physician without the express consent of his own medical attendant. It is of great importance that physicians should act in concert; for, although their modes of treatment may be attended with equal success when employed singly, yet conjointly they are very likely to be productive of disastrous results.

§ 8. When a patient wishes to dismiss his physician, justice and common courtesy require that he should declare his reasons for so doing.

§ 9. Patients should always, when practicable, send for their physician in the morning, before his usual hour of going out; for, by being early aware of the visits he has to pay during the day, the physician is able to apportion his time in such a manner as to prevent an interference of engagements. Patients should also avoid calling on their medical adviser unnecessarily during the hours devoted to meals or sleep. They should always be in readiness to receive the visits of their physician, as the detention of a few minutes is often of serious inconvenience to him.

§ 10. A patient should, after his recovery, entertain a just and enduring sense of the value of the services rendered him by his physician; for these are of such a character, that no mere pecuniary acknowledgment can repay or cancel them.

CHAPTER II.

OF THE DUTIES OF PHYSICIANS TO EACH OTHER, AND TO THE PROFESSION AT LARGE.

ART. I.—*Duties for the support of professional character.*

§ 1. Every individual, on entering the profession, as he becomes thereby entitled to all its privileges and immunities, incurs an obligation to exert his best abilities to maintain its dignity and honor, to exalt its standing, and to extend the bounds of its usefulness. He should, therefore, observe strictly, such laws as are instituted for the government of its members:—should avoid all contumelious and sarcastic remarks relative to the faculty, as a

body; and while, by unwearied diligence, he resorts to every honorable means of enriching the science, he should entertain a due respect for his seniors, who have, by their labors, brought it to the elevated condition in which he finds it.

§ 2. There is no profession, from the members of which greater purity of character, and a higher standard of moral excellence are required, than the medical; and to attain such eminence, is a duty every physician owes alike to his profession and to his patients. It is due to the latter, as without it he cannot command their respect and confidence; and to both, because no scientific attainments can compensate for the want of correct moral principles. It is also incumbent upon the faculty to be temperate in all things, for the practice of physic requires the unremitting exercise of a clear and vigorous understanding; and, on emergencies, for which no professional man should be unprepared, a steady hand, an acute eye, and an unclouded head may be essential to the well-being, and even to the life, of a fellow creature.

§ 3. It is derogatory to the dignity of the profession to resort to public advertisements or private cards, or handbills, inviting the attention of individuals affected with particular diseases—publicly offering advice and medicine to the poor gratis, or promising radical cures; or to publish cases and operations in the daily prints, or suffer such publications to be made; to invite laymen to be present at operations, to boast of cures and remedies, to adduce certificates of skill and success, or to perform any other similar acts. These are the ordinary practices of empirics, and are highly reprehensible in a regular physician.

§ 4. Equally derogatory to professional character is it, for a physician to hold a patent for any surgical instrument or medicine; or to dispense a secret *nostrum*, whether it be the composition or exclusive property of himself or of others. For, if such nostrum be of real efficacy, any concealment regarding it is inconsistent with beneficence and professional liberality; and if mystery alone give it value and importance, such craft implies either disgraceful ignorance or fraudulent avarice. It is also reprehensible for physicians to give certificates attesting the efficacy of patent or secret medicines, or in any way to promote the use of them.

ART. II.—*Professional services of physicians to each. other.*

§ 1. All practitioners of medicine, their wives and their children while under the paternal care, are entitled to the gratuitous services of any one or more of the faculty residing near them, whose assistance may be desired. A physician afflicted with a disease is usually an incompetent judge of his own case; and the natural anxiety and solicitude which he experiences at the sickness of a wife, a child, or any one who, by the ties of consanguinity, is rendered peculiarly dear to him, tend to obscure his judgment, and produce timidity and irresolution in his practice. Under such circumstances, medical men are peculiarly dependent upon each other, and kind offices and professional aid should always be cheerfully and gratuitously afforded. Visits ought not, however, to be obtruded officiously; as such unasked civility may give rise to embarrassment, or interfere with that choice on which confidence depends. But, if a distant member of the faculty, whose circumstances are affluent, request attendance, and an honorarium be offered, it should not be declined; for no pecuniary obligation ought to be imposed, which the party receiving it would wish not to incur.

ART. III.—*Of the duties of physicians as respects vicarious offices.*

§ 1. The affairs of life, the pursuit of health, and the various accidents and contingences to which a medical man is peculiarly exposed, sometimes require him temporarily to withdraw from his duties to his patients, and to request some of his professional brethren to officiate for him. Compliance with this request is an act of courtesy, which should always be performed with the utmost consideration for the interest and character of the family physician, and when exercised for a short period, all the pecuniary obligations for such service should be awarded to him. But if a member of the profession neglect his business in quest of pleasure and amusement, he cannot be considered as entitled to the advantages of the frequent and long-continued exercise of this fraternal courtesy, without awarding to the physician who officiates the fees arising from the discharge of his professional duties.

In obstetrical and important surgical cases, which give rise to unusual fatigue, anxiety, and responsibility, it is

just that the fees accruing therefrom should be awarded to the physician who officiates.

ART. IV.—*Of the duties of physicians in regard to consultations.*

§ 1. A regular medical education furnishes the only presumptive evidence of professional abilities and requirements, and ought to be the only acknowledged right of an individual to the exercise and honors of his profession. Nevertheless, as in consultations the good of the patient is the sole object in view, and this is often dependent on personal confidence, no intelligent regular practitioner, who has a license to practise from some medical Board of known and acknowledged respectability, recognised by the Americal Medical Association, and who is in good moral and professional standing in the place in which he resides, should be fastidiously excluded from fellowship, or his aid refused in consultation, when it is requested by the patient. But no one can be considered as a regular practitioner or a fit associate in consultation, whose practice is based on an exclusive dogma, to the rejection of the accumulated experience of the profession, and of the aids actually furnished by anatomy, physiology, pathology, and organic chemistry.

§ 2. In consultations, no rivalship or jealousy should be indulged; candor, probity, and all due respect should be exercised toward the physician having charge of the case.

§ 3. In consultations, the attending physician should be the first to propose the necessary questions to the sick; after which the consulting physician should have the opportunity to make such further inquiries of the patient as may be necessary to satisfy him of the true character of the case. Both physicians should then retire to a private place for deliberation; and the one first in attendance should communicate the directions agreed upon to the patient or his friends, as well as any opinions which it may be thought proper to express. But no statement or discussion of it should take place before the patient or his friends, except in the presence of all the faculty attending, and by their common consent; and no *opinions* or *prognostications* should be delivered, which are not the result of previous deliberation and concurrence.

§ 4. In consultations, the physician in attendance should deliver his opinion first; and when there are several consulting, they should deliver their opinions in the order in which they have been called in. No decision,

however, should restrain the attending physician from making such variations in the mode of treatment, as any subsequent unexpected change in the character of the case may demand. But such variations, and the reasons for it, ought to be carefully detailed at the next meeting in consultation. The same privilege belongs also to the consulting physician if he is sent for in an emergency, when the regular attendant is out of the way, and similar explanations must be made by him at the next consultation.

§ 5. The utmost punctuality should be observed in the visits of physicians when they are to hold consultation together, and this is generally practicable, for society has been considerate enough to allow the plea of a professional engagement to take precedence of all others, and to be an ample reason for the relinquishment of any present occupation. But, as professional engagements may sometimes interfere, and delay one of the parties, the physician who first arrives should wait for his associate a reasonable period, after which the consultation should be considered as postponed to a new appointment. If it be the attending physician who is present, he will, of course, see the patient and prescribe; but if it be the consulting one, he should retire, except in case of emergency, or when he has been called from a considerable distance, in which latter case he may examine the patient, and give his opinion in *writing* and *under seal*, to be delivered to his associate.

§ 6. In consultations, theoretical discussions should be avoided, as occasioning perplexity and loss of time. For there may be much diversity of opinion concerning speculative points, with perfect agreement in those modes of practice which are founded, not on hypothesis, but on experience and observation.

§ 7. All discussions in consultation should be held as secret and confidential. Neither by words nor manner should any of the parties to a consultation assert or insinuate, that any part of the treatment pursued did not receive his assent. The responsibility must be equally divided between the medical attendants, they must equally share the credit of success as well as the blame of failure.

§ 8. Should an irreconcilable diversity of opinion occur when several physicians are called upon to consult together, the opinion of the majority should be considered as decisive; but if the numbers be equal on each side, then the decision should rest with the attending

physician. It may, moreover, sometimes happen that two physicians cannot agree in their views of the nature of a case, and the treatment to be pursued. This is a circumstance much to be deplored, and should always be avoided, if possible, by mutual concessions, as far as they can be justified by a conscientious regard for the dictates of judgment. But in the event of its occurrence, a third physician should, if practicable, be called to act as umpire; and, if circumstances prevent the adoption of this course, it must be left to the patient to select the physician in whom he is most willing to confide. But, as every physician relies upon the rectitude of his judgment, he should, when left in the minority, politely and consistently retire from any further deliberation in the consultation, or participation in the management of the case.

§ 9. As circumstances sometimes occur to render a *special consultation* desirable, when the continued attendance of two physicians might be objectionable to the patient, the member of the faculty whose assistance is required in such cases, should sedulously guard against all future unsolicited attendance. As such consultations require an extraordinary portion both of time and attention, at least a double honorarium may be reasonably expected.

§ 10. A physician who is called upon to consult, should observe the most honorable and scrupulous regard for the character and standing of the practitioner in attendance; the practice of the latter, if necessary, should be justified as far as it can be, consistently with a conscientious regard for truth, and no hint or insinuation should be thrown out which could impair the confidence reposed in him, or affect his reputation. The consulting physician should also carefully refrain from any of those extraordinary attentions or assiduities, which are too often practised by the dishonest for the base purpose of gaining applause, or ingratiating themselves into the favor of families and individuals.

ART. V.—*Duties of physicians in cases of interference.*

§ 1. Medicine is a liberal profession, and those admitted into its ranks should found their expectations of practice upon the extent of their qualifications, not on intrigue or artifice.

§ 2. A physician, in his intercourse with a patient under the care of another practitioner, should observe the strictest caution and reserve. No meddling inquiries

should be made—no disingenuous hints given relative to the nature and treatment of his disorder; nor any course of conduct pursued that may directly or indirectly tend to diminish the trust reposed in the physician employed.

§ 3. The same circumspection and reserve should be observed when, from motives of business or friendship, a physician is prompted to visit an individual who is under the direction of another practitioner. Indeed, such visits should be avoided, except under peculiar circumstances; and when they are made, no particular inquiries should be instituted relative to the nature of the disease, or the remedies employed, but the topics of conversation should be as foreign to the case as circumstances will admit.

§ 4. A physician ought not to take charge of or prescribe for a patient who has recently been under the care of another member of the faculty in the same illness, except in cases of sudden emergency, or in consultation with the physician previously in attendance, or when the latter has relinquished the case, or been regularly notified that his services are no longer desired. Under such circumstances, no unjust and illiberal insinuations should be thrown out in relation to the conduct or practice previously pursued, which should be justified as far as candor and regard for truth and probity will permit; for it often happens that patients become dissatisfied when they do not experience immediate relief, and, as many diseases are naturally protracted, the want of success, in the first stage of treatment, affords no evidence of a lack of professional knowledge and skill.

§ 5. When a physician is called to an urgent case, because the family attendant is not at hand, he ought, unless his assistance in consultation be desired, to resign the care of the patient to the latter immediately on his arrival.

§ 6. It often happens, in cases of sudden illness or of recent accidents and injuries, owing to the alarm and anxiety of friends, that a number of physicians are simultaneously sent for. Under these circumstances, courtesy should assign the patient to the first who arrives, who should select from those present any additional assistance that he may deem necessary. In all such cases, however, the practitioner who officiates should request the family physician, if there be one, to be called, and, unless his further attendance be requested, should resign the case to the latter on his arrival.

§ 7. When a physician is called to the patient of another practitioner, in consequence of the sickness or absence of the latter, he ought, on the return or recovery of the regular attendant, and with the consent of the patient, to surrender the case.

[The expression, "Patient of another Practitioner," is understood to mean a patient who may have been under the charge of another practitioner at the time of the attack of sickness, or departure from home of the latter, or who may have called for his attendance during his absence or sickness, or in any manner given it to be understood that he regarded the said physician as his regular medical attendant.]

§ 9. A physician, when visiting a sick person in the country, may be desired to see a neighboring patient who is under the regular direction of another physician, in consequence of some sudden change or aggravation of symptoms. The conduct to be pursued on such an occasion is to give advice adapted to present circumstances; to interfere no further than is absolutely necessary with the general plan of treatment; to assume no future direction, unless it be expressly desired; and, in this last case, to request an immediate consultation with the practitioner previously employed.

§ 9. A wealthy physician should not give advice *gratis* to the affluent; because his doing so is an injury to his professional brethren. The office of a physician can never be supported as an exclusively beneficent one; and it is defrauding, in some degree, the common funds for its support, when fees are dispensed with which might justly be claimed.

§ 10. When a physician who has been engaged to attend a case of midwifery is absent, and another is sent for, if delivery is accomplished during the attendance of the latter, he is entitled to the fee, but should resign the patient to the practitioner first engaged.

ART. VI.—*Of differences between physicians.*

§ 1. Diversity of opinion and opposition of interest, may, in the medical as in other professions, sometimes occasion controversy and even contention. Whenever such cases unfortunately occur, and cannot be immediately terminated, they should be referred to the arbitration of a sufficient number of physicians, or a *court-medical.*

§ 2. As peculiar reserve must be maintained by phy-

sicians toward the public, in regard to professional matters, and as there exist numerous points in medical ethics and etiquette through which the feelings of medical men may be painfully assailed in their intercourse with each other, and which cannot be understood or appreciated by general society, neither the subject-matter of such differences nor the adjudication of the arbitrators should be made public, as publicity in a case of this nature may be personally injurious to the individuals concerned, and can hardly fail to bring discredit on the faculty.

ART. VII.—*Of pecuniary acknowledgments.*

Some general rules should be adopted by the faculty, in every town or district, relative to *pecuniary acknowledgments* from their patients; and it should be deemed a point of honor to adhere to these rules with as much uniformity as varying circumstances will admit.

CHAPTER III.

OF THE DUTIES OF THE PROFESSION TO THE PUBLIC, AND OF THE OBLIGATIONS OF THE PUBLIC TO THE PROFESSION.

ART. I. *Duties of the profession to the public.*

§ 1. As good citizens, it is the duty of physicians to be ever vigilant for the welfare of the community, and to bear their part in sustaining its institutions and burdens; they should also be ever ready to give council to the public in relation to matters especially appertaining to their profession, as on subjects of medical police, public hygiene, and legal medicine. It is their province to enlighten the public in regard to quarantine regulations—the location, arrangement, and dietaries of hospitals, asylums, schools, prisons, and similar institutions—in relation to the medical police of towns, as drainage, ventilation, &c., and in regard to measures for the prevention of epidemic and contagious diseases; and when pestilence prevails, it is their duty to face the danger, and to continue their labors for the alleviation of the suffering, even at the jeopardy of their own lives.

§ 2. Medical men should also be ready, when called on by the legally constituted authorities, to enlighten coroners' inquests, and courts of justice, on subjects strictly medical—such as involve questions relating to sanity, legitimacy, murder by poisons or other violent means,

and in regard to the various other subjects embraced in the science of Medical Jurisprudence. But in these cases, and especially where they are required to make a *post-mortem* examination, it is just, in consequence of the time, labor, and skill required, and the responsibility and risk they incur that the public should award them a proper honorarium.

§ 3. There is no profession, by the members of which eleemosynary services are more liberally dispensed than the medical, but justice requires that some limits should be placed to the performance of such good offices. Poverty, professional brotherhood, and certain of the public duties referred to in the first section of this article, should always be recognized as presenting valid claims for gratuitous services; but neither institutions endowed by the public or by rich individuals, societies for mutual benefit, for the insurance of lives or for analogous purposes, nor any profession or occupation, can be admitted to possess such privilege. Nor can it be justly expected of physicians to furnish certificates of inability to serve on juries, to perform militia duty, or to testify to the state of health of persons wishing to insure their lives, obtain pensions, or the like without a pecuniary acknowledgment. But to individuals in indigent circumstances, such professional services should always be cheerfully and freely accorded.

§ 4. It is the duty of physicians, who are frequent witnesses of the enormities committed by quackery, and the injury to health and even destruction of life caused by the use of quack medicines, to enlighten the public on these subjects, to expose the injuries sustained by the unwary from the devices and pretentions of artful empirics and impostors. Physicians ought to use all the influence which they may possess, as professors in Colleges of Pharmacy, and by exercising their option in regard to the shops to which their prescriptions shall be sent, to discourage druggists and apothecaries from vending quack or secret medicines, or from being in any way engaged in their manufacture and sale.

ART. II.—*Obligations of the public to physicians.*

The benefits accruing to the public, directly and indirectly, from the active and unwearied beneficence of the profession are so numerous and important, that physicians are justly entitled to the utmost consideration and respect from the community. The public ought likewise

to entertain a just appreciation of medical qualifications; to make a proper discrimination between true science and the assumptions of ignorance and empiricism—to afford every encouragement and facility for the acquisition of medical education—and no longer to allow the statute-books to exhibit the anomaly of exacting knowledge from physicians, under a liability to heavy penalties, and of making them obnoxious to punishment for resorting to the only means of obtaining it.

ADDENDUM.—The American Medical Association, during its meeting in New Orleans, May, 1869, decided, "that private handbills addressed to members of the medical profession, or advertisements, in newspapers or medical journals, calling the attention of physicians to *specialiste* be declared in violation of section 3, article 1, chapter 2 of the Code of Ethics. It was also decided, at the same meeting, "that all *contract physicians*, as well as those guilty of bidding for practice at less rates than those established by a majority of regular graduates of the same locality, be classed as irregular practitioners."

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ART. II.—ANTISEPTIC SURGERY.

Dr. Wiesse, in the course of his practical illustrations of Mr. Lister's treatment before the County Medical Society (for his paper, there read, see Medical Record, April 1, 1869, p. 52), mentioned, among other points, that vomiting sometimes follows the application of a stronger solution of carbolic acid to large wounds, as observed by both English and continental surgeons.

Dr. Squibb regretted that Mr. Lister, with his characteristic enthusiasm, had so exaggerated the virtues which might justly be claimed for the so-called carbolic acid, and had so needlessly complicated the methods of its application. He had, moreover, given exclusive preference to the crystalized "acid" (phenol), which, for commerical reasons, Mr. Calvert had brought so prominently before the public, although, for all purposes of disinfection and local application, this was decidedly inferior to the ordinary creasote of the shops (a mixture of phenol, cresol, xylol and perhaps one or two others of the series,

the cresol predominating), which had also the advantage of being much cheaper. Simple watery solutions of creasote, sufficiently dilute, applied on old linen or muslin, would doubtless serve every purpose of Mr. Lister's putties and plasters. For burns, both to allay the pain and to promote healing, nothing compared to such a solution, containing about one-half of one per cent. of creasote. If much stronger, it would not only fail to relieve, but would intensify the pain. The pain due to a strong application, while exactly resembling that of a burn in character, might be distinguished from it in this: that it is increased by elevating the part so as to drain it of blood, and diminish by allowing the blood to flow into it; of the pain of a burn the reverse is true. Mr. Lister must unquestionably have done much harm in his stronger applications. He had begun with using the simple deliquesced crystals, and the two per cent. solution he now employed was still too strong for most purposes.

In response to questions from Dr. Jacobi and others, Dr. Squibb remarked that the most prominent effect of a strong solution of carbolic acid upon healthy tissue was to coagulate its albumen, and this done, the tissue was dead and became a foreign body. It was a curious question what had become of such devitalized tissue, sealed up by Mr. Lister in his early operations—for it had been his custom to smear the pure acid all about within the wound. We could look for absorption of coagulated albumen only after its digestion; and we had no account that Mr. Lister had introduced pepsine along with the acid! Most probably the dead material became encysted, like other foreign bodies. This property of carbolic acid explained how it so often injured, by rendering opaque, the anatomical specimens it was meant to preserve. For delicate specimens, an aqueous solution should contain considerably less than one per cent. of the "impure" acid (common creasote); perhaps one-fourth of his strength would be nearly correct.

Dr. Jacobi could strongly indorse the remarks of Dr. Squibb, from an extensive use of carbolic acid upon both living and dead tissues. To its coagulating power was due its happy effect upon diphtheritic exudations. A ten per cent. solution would rapidly shrivel up a croupous membrane; and this strength would destroy, instead of preserving healthy tissue. In his early experiments he

had caused perforation of the cornea in five or six hours, in a case of diphtheritic conjunctivitis, by a very slight application to the conjunctiva of one part of the acid to eight or ten of glycerine and water. In puerperal endometritis he had washed out the uterus with a solution of three or four grains to the ounce of water, with excellent effect. For very bad cases, intra-uterine injections might be used of five times this strength; but they must be carefully thrown directly into the uterus, and the vagina must be immediately washed out with a weaker solution.

Dr. Elliot related the effect of carbolic acid disinfection, together with the careful enjoyment of all other hygienic means, in freeing from puerperal fever the lying-in wards of Bellevue Hospital.—*Medical Record and Leavenworth Medical Herald.*

Art. III.—How to Use the Nitrate of Silver in Erysipelatous Inflammation.

It scarcely appears necessary to give directions for the use of nitrate of silver in erysipelatous inflammation after they had been so plainly stated in my letter on that subject.

It is remarkable that in all the medical and surgical works, manuals, and lectures, &c., I have not seen one correct direction, either of the strength of the solution of nitrate of silver, or the proper method of applying it, although professedly copied from my work. The careless and incorrect reference to it has greatly misled practitioners in the use of it, and has been quite sufficient to bring the remedy into discredit.

I may venture to say we have no therapeutic agent so safe, powerful, or efficacious as the nitrate of silver, in subduing external inflammation, when properly applied. It has been invariably successful in my hands for nearly the last forty years.

I am desirous of inserting the directions for the use of the nitrate of silver in the Practitioner, as it must become a valuable book for therapeutic reference.

The method of applying the nitrate of silver is as follows: The affected part should be well washed with soap and water, then with water alone, to remove every particle of soap, as the soap would decompose the nitrate of

silver; then to be wiped dry with a soft towel. The concentrated solution of four scruples of the nitrate of silver to four drachms of distilled water is then to be applied two or three times on the inflamed surface and beyond it, on the healthy skin, to the extent of two or three inches. The solution may be applied with a small piece of clean linen, attached to the end of a short stick; the linen to be renewed at every subsequent application. As the solution of nitrate of silver is colorless, it is necessary to pass a little linen, just moistened, over every part where it has been used, in order to be equally diffused, so that no part be left untouched.

In about twelve hours it will be seen whether the solution has been well applied. If any inflamed part be unaffected, the solution must be immediately reäpplied. Sometimes, even after the most decided application of the nitrate of silver, the inflammation may spread, but is then generally much less severe, and is eventually checked by repeated application. It is desirable to visit the patient every twelve hours, until the inflammation is subdued.

By these means we have complete control over the disease.

For the successful application of nitrate of silver, the ordinary brittle stick, either solid or in solution must be used. Not the "lunar caustic points perfectly tough,' nor the crystals and cake used for photographic purposes.—*The Practitioner.*

Art. IV.—On the Treatment of Scarlet Fever.

A few weeks ago Dr. Budd published an able article on scarlet fever, and as he and I obtain similar results, though by different means, I am desirous of submitting a few observations on the subject.

Instead of waiting till the third or fourth day to anoint the patient's body with oil, and to repeat this twice daily, in order to retain *in situ* the infectious excreta from the skin, and after a longer or shorter interval washing this off in a warm bath, my practice is as follows:

On the very first access of the fever, I put my patient into a warm bath, and repeat this as often as the strength of the patient will allow or the severity of the attack

may require. The first effect of this treatment is to produce a soothing and refreshing feeling in the patient, to be followed soon by such an eruption on the surface, of so vivid a color and in such amount, as would astonish those who have never witnessed it. Thus one of the greatest dangers of this fearful disease—the suppression of the eruption—is escaped.

After the first or second bath the appetite usually returns, so by getting down light and nutritious food the means are afforded of supporting the strength of the patient during one of the most trying periods of the disease. By this treatment the excreta from the skin are removed as rapidly as they are deposited, doing away immediately with the source of infection, leaving no room for the dissemination of the disease. The desquamation of the cuticle is greatly promoted, it being removed in small particles, and never in large pieces.

The drying of the body after the bath is affected by soft linen cloths, sufficiently large to envelop the whole person, and with as little friction as possible; in fact, the surface is what may be called "dabbed" dry, as the excitement from friction of the skin often produces great mischief.

The irritation of internal organs is also at once relieved by this continued determination to the surface. And as the condition of the latter becomes more healthy, the nasal, renal, and alvine secretions, with those of the throat—in my opinion the most dangerous of all—are speedily deprived of their noxious properties, and quickly recover a healthy character, thus again removing additional sources of infection.

The fever rapidly subsides, and convalescence usually proceeds more or less quickly, according to the mildness or severity of the attack. Another advantage of this treatment is, that a very serious case is soon reduced to a mild one, and the patient recovers in less than half the usual time.

This practice I have pursued for more than fifteen years, during which period I have attended many cases of scarlet fever; but have never lost a single patient from this disease, nor can I call to mind at this moment any one case in which the infection has been carried from the patient to any other individual. I have also attended cases where isolation was impossible, or would not be attended to, the patients having free communication with

the other members of the family, but where the treatment above recommended has been scrupulously carried out, no second case has arisen.

The consequence of all this is that, when the patient's health is sufficiently reëstablished, permission has been given to join the rest of the family; and I am satisfied that the patient might also be speedily restored to society with perfect safety. In no instance have I known any harm to arise from this permission. During the convalescence of the patient the bath, of course, may be used daily, or every other day, according to the feelings or wishes of the patient; but its temperature should be gradually reduced, so as to invigorate and not exhaust, and also to enable the surface to successfully resist the alternations of heat and cold to which the patient may be exposed in moving about from place to place.

The terrible sequelæ of this formidable disease are, also, by the treatment above recommended, seldom if ever met with. No nurse or washerwoman has, to my knowledge, suffered from the performance of her avocations. Of course the necessary medicines must be administered as occasion requires.—[T. Thompson, in London *Lancet.*

ART. V.—CARBOLIC ACID IN THE TREATMENT OF CERTAIN DISEASES OF THE SKIN.

It is in the treatment of the numerous class of skin diseases, more than any other, that the practitioner meets with the most provoking disappointments. It will be, therefore, not out of place to state briefly here the history of some cases treated with a new remedy, and the success which attended its application.

Early in October of last year I was consulted by Miss —— for a troublesome affection of the ears and forefinger of the left hand, which I made out to be eczema chronicum. I treated this with an ointment of white wax, hydrocyanic acid and glycerine, and the exhibition of lime-water, and subsequently of iodide of potassium, internally. Having had, some short time previously, some wounds under my care which I treated with a lotion of carbolic acid with much satisfaction, I bethought me that the same protection which this agent affords to nature in the suppurative process in cases of wounds might equally be availed of in the healing process at-

tempted in the altered cutis. To an eight ounce phial of glycerine and water I added about twenty minims of pure carbolic acid, and applied it to the ears and finger night and morning. The application exceeded my expectations, and the eruption disappeared in a week, leaving a perfectly natural surface beneath. This lady has also her right leg affected with eczema rubrum, which had become chronic some three months previous to my treating her. To this, also, the lotion was applied, and with perfect success.

Mrs. D—— had been treated by several physicians, myself among the number, for the most troublesome and obstinate eruption of eczema facii I have seen. From the success which attended the application of carbolic acid in Miss ——'s case, I determined to try it in this. I did so, and with this result: that, whilst using the lotion, the face is perfectly smooth, and free from any trace of eruption; but, on its discontinuance, it invariably returns, though in a mitigated degree.

I do not know how many attempts I made to cure D. C——, aged three years, of impetigo larvalis, in which his face was completely masked, several parts of his body being also affected. I only know that I was unsuccessful, and that others were equally so. With the history of the cases related above before me, I could not do otherwise than give the carbolic acid a trial. Every bit of the scaly mask is now cleared off, and the skin, although presenting the characteristic redness, does so daily less in intensity, and is just recovering its natural softness.

I will add, as of much importance to the veterinary profession, that I have used a stronger lotion with much success in the treatment of "scab" in sheep.—[W. St. John Coleman, in London *Lancet*.

Art. VI.—Barnes' Dilators.

Dr. Barnes, speaking of the various means useful to effect dilatation of the cervix in labor, says, that "water pressure is the most natural, the most safe, and the most effective. An os-uteri that will admit one finger, will admit a No. 2 dilator in a collapsed state. The introduction is effected in this way: Insert the point of a uterine sound, or a male catheter, or any convenient stem

into the pouch at the end of the bag; roll the bag round the stem, anoint it with lard or soap, then pass it into the cervix, guided by the forefinger of the left hand, which is kept on the os-uteri. When the bag is passed so far that the narrow or middle part is fairly embraced by the cervical ring, withdraw the sound, keeping the guiding finger on the os to insure the preservation of the bag in situ; then pump in water gradually. Continue distending the bag until you feel it is tightly nipped by the os. When this is done, wait a while; close the stop cock, and give time for the distending eccentric force to wear out the resistance of the cervix. No muscle can long resist a continuous elastic force. From time to time inject a little more water, so as to maintain and improve the grip: but be careful not to distend the bag beyond its strength.

There is, of course, a limit to the distensibility, even of India rubber; and I have been told of cases where the bag has burst. I think this accident is easily avoided. When you have got all the dilatation of No. 2 that it is capable of giving, remove it and introduce No. 3, which is larger and more powerful. The dilatation that No. 3 will give is commonly enough to afford room for the forceps or the hand. The time required for this amount of dilatation will range from half an hour to two hours; but, not to lose time, it is desirable to keep your finger on the edge of the os, so as to be sure that the bag does not slip forward into the uterus altogether, or is not driven down into the vagina by uterine action. If it slips wholly into the uterus, it may displace the hand. When you have gained your end, open the stop cock; the water is ejected in a stream, and the bag is easily withdrawn.

The cervical dilator serves yet another purpose. Taking the place of the liquor amnii, it does duty for the bag of membranes. It not only directly expands the cervix, but, setting up a quasi, normal reflex excitation, it evokes the regular action of the body of the uterus.

This proceeding will succeed in a great majority of instances, especially where the closure of the cervix is due to spasmodic action, or where, the tissue of the cervix being normal, it can not expand for want of an eccentric expanding force, as where the membranes or child do not bear upon it. The plan of combining the water dilator with incisions, by means of a knife, is especially valuable in cases of rigidity from hypertrophy of cervix or of atresia of os, or vagina from cicatrices."

Barnes' dilators also afford the most useful and efficient means for the production of premature labor, and in point of safety excel all other means in process, save, perhaps, the uterine douche. They have a much wider range of utility than any, such as the douche, injection to the fundus of the uterus, puncture of the membranes, use of the catheter between the membranes and uterine walls, galvanic and electric currents, manual dilatation, or use of the knife. None of these last named are adapted to all cases. Every obstetrician can see the very great value the dilators possess in certain cases of ante-partum hæmorrhage as unavoidable, and also in puerperal convulsions, during labor, with the os imperfectly dilated or spasmodically contracted, when every means are required to safely and rapidly terminate labor.—[*Cin. Lan. & Obs.*

No physician should be without these necessary appliances in obstetric practice.

ANALYTICAL DEPARTMENT.

"Qui e nuce nucleum esse vult, frangit nucem."—PLAUTUS.

ART. I.—ANALYSIS OF VARIOUS ARTICLES. Published in the Medical Times and Gazette, and the London Lancet. (Original copies.) By Prof. JAMES M. HOLLOWAY, Associate Editor.

Dr. James Cummins, Professor of Theory and Practice of Medicine in Queen's College, Belfast, reports in the Dublin Quarterly, for May, 1869, a summary of the conclusions of Jürgensen, Liebermeister, and other eminent observers, as to the value of cold water applications in the treatment of typhoid fever. The object is to allay the excessive heat that is usual in all fevers. The thermometer is employed to determine the animal heat, either the axilla or the rectum being selected as the place for the observations. When the animal heat exceeds from 102° to 104° F., the use of the cold water is indicated.

The cold bath, cold affusions, and the *cold pack* are used, the first being regarded as the most efficacious. The temperature of the water should be about 65° and the patient be kept in the bath from five to ten minutes, according to the strength and degree of tolerance. The *pack* is suitable for very feeble patients.

The mortality, by this treatment, has been very much reduced, the diarrhœa being less severe, the delirium not so persistent and the comfort of the patient promoted. Other remedies, such as iodine, calomel, etc., were used in conjunction with the bath. The heat, in some cases, returns so rapidly after the use of the bath that its frequent repetition becomes necessary, as often sometimes as every two hours.

Under the same caption, in the Dublin Quarterly, Mr. Finlayson is represented as stating that the result of observations upon the normal temperature of children, shows a daily range of from 2° to 3° F., there being invariably a fall best marked from 7 to 9 P. M., the minimum being reached about 2 A. M. He did not find a "direct relationship between the pulse respiration and the amount of normal temperature."

The following is Brown-Sequard's usual prescription for epilepsy, of which a teaspoonful is to be taken before each meal and three teaspoonsful at bed time, with a little water; iodide of potassium, one drachm; bromide of potassium, one ounce; bromide of ammonium, two and a half drachms; bicarbonate potash, two scruples; infusion of calumba, six fluid ounces. Mix. "The medicine should be pushed until anæsthesia of the fauces is produced and an acne-like eruption appears on the neck, face, shoulders," etc. The treatment should be continued for sixteen months after the convulsions have ceased, an occasional purgative being given.

In the Times and Gazette, May 22, 1869, two cases of fracture of base of skull are reported, under the care of Mr. DeMorgan, from which both patients recovered.

In the first case, a tailor, aged 45, blood flowed from the right ear for six days, at which time he was still drowsy, and his speech was indistinct. He was discharged from the hospital on the eighteenth day after admission.

The second case fell, while intoxicated, twenty feet into a stone-paved yard. When admitted into Middlesex Hospital, pulse 40 and irregular, right eye protruding and conjunctiva ecchymosed and semi-conscious. Two hours afterwards was comatose and breathing stertorous. On second day still unconscious, loss of power and

marked coolness of left side; consciousness gradually returned that evening. Paralysis more marked on the third day, with involuntary discharges of urine and fæces. On the fourth day he was occasionally delirious, much headache, which continued for three subsequent days, when the power of motion in leg was restored, the left arm still powerless.

On the 26th day he was discharged much improved, the pulse gradually increasing until it reached 70 beats.

Treatment, absolute rest, purgatives, mild diet, and ice to head.

In the same series of reports, are included one case of fracture of base of the skull, with extensive lesions, under the care of Mr. Moore, in which death occurred on the thirty-first day, consciousness never having returned; and another case, under the care of Mr. Hulke, of comminuted depressed fracture, in which the trephine was employed; death followed in ten hours. The use of the trephine, in this case, proved to be justifiable by the fact that the pulse and respiration, which were respectively 40 and 24 before the operation, immediately rose to 80 and 32 as soon as the bone was raised.

In the Times and Gazette, April 17, 1869, Mr. Hutchinson reports eight additional cases of *herpes zoster*, at the Hospital for Skin Diseases, occurring after the continuous administration of arsenic. He had in a former number of the Journal, reported a similar number, the majority of the whole having been observed in his own practice. He is disposed to conclude from this clinical experience that there must be some connection between the use of this drug and the supervention of *shingles*.

CLINICAL RECORDS.

"Ex Principiis, nascitur probabilitas: ex factis, vero veritas."

Art. I.—Epilepsy Treated with the Trephine—Recovery. By A. F. Magruder, M.D., Sharon, Miss.

Miss M., the subject of this report, is a young lady of good family, the daughter of a respectable planter of Leake county, Miss. Is aged 19 years and 4 months, of

medium height, pretty well developed, and weighs ordinarily one hundred and fifteen to one hundred and twenty pounds.

During the past year her brother, in whose family I practiced, mentioned her condition to me, and expressed a desire that I should see her. Subsequently, while visiting his father, Miss M. was attacked with epileptic convulsions of unusual severity. At his suggestion I was called to see her on the 31st of Janunary ult. The roads being heavy and the distance twenty miles, I did not reach her till evening, when I found her with violent spasmodic action, more marked in the left side and attended with delirium. She was being held in bed by several lady attendants, and when released would spring to the floor, but would fall in consequence of spasm of the extremities.

I summoned Dr. Morris, the attending physician, and proceeded to examine the patient. The history of the case, as derived from the family, was as follows:

When four years old she "began having fits," which varying in violence, and occurring at irregular intervals, continued until she arrived at puberty, when (as might have been expected) they became periodic, a characteris, tic which continued for several years. Within the past twelve months, however, this peculiarity seems to have disappeared, the spasms occurring more frequently, some times only a few days intervening. The patient usually has a good appetite, some gastric disturbance, but bowels regular. Catamenia said to be normal, though somewhat scant, usually continuing five days, unattended with much pain.

Patient states that unusual tingling of the left hand and foot, with headache, is uniformly regarded as a premonition of attack. Aphasia generally preceding the spasms, which has created a habit of rolling the tongue

and presenting the fingers of the left hand grasped firmly in the right, as a sign to the family of distress.

It was ascertained that when four years old she was struck on the head, accidentally, with a piece of iron, thrown from the hand of a nurse. The wound produced was serious, but not such as to excite the alarm of her parents. It continued to discharge for several months, and when cicatrization was complete, the patient began to have fits; yet the injury was overlooked by her attendants, and no serious consideration given to it as a cause of the disturbance.

The spasmodic action continuing with greater or less violence during the night of my first visit, the examination was not as thorough as it might otherwise have been, but I present the following outline as the result of that and subsequent examinations:

A short but deep indentation was observed in the upper posterior portion of the right parietal bone, (the missile having been thrown from behind), extending obliquely upward and forward nearly to the sagittal suture; attended with hemiplegia, affecting the limbs and the left palpebra. It was noticed that on starting to walk, the left foot was lifted with a spasmodic jerk, stepping much higher than with the opposite limb. The left hand smaller than the right, exhibited a want of muscular development and dificient circulation, the radial pulsation being imperceptible. Both hand and foot were represented as subject to cold and numbness, and prickling sensations as if asleep. The left eye presented a heavy dull appearance, and the lid drooped, never disclosing more than half of the orb. It was also observed that the patient slept with the right eye open and the left closed, and that, on awaking, the left lid remained closed for some minutes, and then was slowly and partially elevated. Another system which was remarked as uniform, was

habitual spitting, much aggravated during her paroxysms, and persistent while sleeping.

How far the rational signs enumerated may have been the result of hysteria or of pressure on the nervous centres, I have not been able to decide, nor is the decision a matter of material consequence, since we have the depression of the cranium over the right hemisphere and corresponding hemiplegia, with epileptic convulsions, unattended with other important functional derangement. Circumstances, which I think fully justify an operation, especially when it is considered that the symptoms, should they continue after the operation, would not be the less amenable to treatment, but on the contrary the treatment might be much assisted by the moral force resulting therefrom.

After the most patient etiological investigation it was so obvious to my mind that the whole train of symptoms originated in the injury to the cranium, producing compression, and to be relieved only by surgical treatment, that I advised trephining, which was readily assented to by the patient. Having placed her on alterative treatment I left her, and saw no more of her till the 12th of March, six weeks after my first visit, when I was notified that she was at her brother's, ten miles distant, and wished to see me. Visiting her, I found her quiet, her intellect clear, but the physicial signs unchanged. A few days after, by invitation, my friends Dr. James Galloway and Dr. C. B. Galloway, of Canton, saw the case with me, and these gentlemen agreeing as to the propriety of trephining, it was determined to operate on the 25th of the same month. At that time, however, she was seized with a violent paroxysm, from which she did not recover fully for ten days. As soon as she was able to travel I took her into my family, and treated her fourteen days. During this time, being frightened, she was

again seized with spasms, which continued at irregular intervals for eight days, the intermission never being attended with consciousness for any considerable period.

On the 19th of April her condition being much improved, she returned to her brother, and I visited her on the 21st, determined to operate. Her aversion to anæsthetics being great, I yielded to her wish, and consented to operate without them, depending simply upon suitable persons to hold her. She stated that she appreciated her condition, and could bear anything for relief. With remarkable fortitude, she placed herself upon the table, requesting attendants not to touch her, except one to to steady her head, which was done with nice address by Mr. John Beall, and the operation completed without difficulty, the T incision being adopted.

The portion of the cranium removed, one and one eighth of an inch in diameter, embraced nearly or quite all the depression, though the indentation could not be made to occupy the middle of the trephine, in consequence of its proximity to the sagittal suture, and came away smoothly, there being no adhesion of the dura mater, but a prominent ridge on the internal table, along the line of the injury. The integument was brought together with four interrupted sutures, which were removed in a few day, the union being complete. In the meantime, however, a little puffiness was observed and an opening made, which admitted the escape of a small amount of bloody serum. This operation was repeated from day to day, the discharge assuming a healthy purulent character, which gradually ceased, leaving a smooth cicatrix.

During the treatment there was no febrile or inflammatory action, the pulse being regular, and varying from seventy-two to eighty-two per minute. It was remarked, however, that whenever there was any accumulation be-

neath the scalp, the left palpebra dropped as before the operation. It is now six weeks since the patient was trephined, and there has been no recurrence of spasms, yet she has had several attacks of intermittent fever, attended, at times, with nervous twitching and restless nights. Has just passed through her menstrual period, mind clear, opens both eyes equally well, is free from tingling of the hand and foot, and walks with ease and regularity. She is now upon alterative and tonic treatment, and to-day returns to her home, in Leake county. I would state that I have not made up my mind to see a speedy and perfect cure in this case. On the contrary, I would feel surprised and gratified at such a result. But having relieved the pressure upon the brain, I hope, by patient and judicious treatment, assisted by all the moral force that can be brought to bear, to eradicate from the nervous system, a habit that has been for fifteen years maturing itself into the condition described.

The question has been asked, "What this case would prove in support of phrenology." I think nothing, "pro or con." Ordinarily, only the nerves of sensation and motion seem to have been involved, the mental faculties remaining unimpaired. Considering the anatomical structure of the brain, and the elastic nature of its membranous surroundings, I infer that no mechanical pressure, whether the result of injury to the cranium, extravasation, or mere engorgement could be produced of sufficient gravity to impair or obliterate one faculty of the intellect, which would not act uniformly, influencing all the faculties alike. In this view, I think, I am sustained by the history of the case herein presented.

In conclusion, I would suggest to the profession an improvement in the circular trephine. It consists in a circular blade, which should be made to embrace closely the barrel of the trephine and so arranged with a temper

screw as to slide up or down, at pleasure. With this, I propose, after dividing and turning back the flaps more nicely and accurately, to divide the pericranium around the trephine, without the use of the scalpel.

ORIGINAL CORRESPONDENCE.

"Sit mihi Fas scribere audita."

PARIS, June, 1869.

In the last letter I showed the symptoms and pathology of putrid infection (septicæmia); and I give you now a résumé of the latest views in regard to purulent infection (pyohæmia.)

If a patient eight or ten days after an amputation, a contused wound, after delivery, &c., &c., is suddenly taken with a chill more or less violent; if this chill repeats itself one or more times a day, and every day at about the same hour for three or four days following; if these chills are followed as in intermittent fever, by heat and perspiration, we may fear that purulent infection has taken place; the diagnosis is no longer doubtful if the patient presents cerebral symptoms of excitement and depression; if the respiration is hurried, a sub-icteric tint of the skin exists, with an alteration of the wound, consisting in the discoloration more or less complete of the granulations and in the diminution of the purulent flow.

We know, too, that a patient the prey of this terrible accident is doomed to almost certain death. I know but of two cases published, where by a profound cauterization of the wound, and at the onset of the disease a cure has been effected, but what are two cases compared to the great number of unsuccessful ones in spite of the same treatment? I can say the same of quinine and aconite,

so much lauded by some surgeons. But since we can not cure, is it in our power to prevent the development of the disease? But before exposing the means resorted to to this end, let us briefly examinine the mode of its formation.

All surgeons (Virchow excepted) admit that the symptoms of purulent infection are due to the introduction of pus into the blood. Robin believes that the serum alone possesses the intoxicating properties, and that the globules are inoffensive. Sédillot's experiments, however, do not admit of this opinion, and we rally ourselves to the side of the surgeons who believe that purulent infection is the result of the presence of the pus globules in the blood. But how explain their introduction into the circulation? Many doctrines exist for the explanation of these phenomena: 1st, suppurative phlebitis; 2d, the erosion of the venous extremities; 3d, absorption of the pus; 4th, purulent diathesis.

1. *Phlebitis.* It is certain that we often observe in purulent infection an inflammation of the veins surrounding the purulent collection. In that case, the blood coagulates in the vessels, the coagulum suppurates, and we have in consequence either an obstruction between the liquid portion of the blood and the central portion of the coagulum in a state of suppuration, (which is the most frequent), or else the pus is caried directly into the veins and thence into lungs, where metastatic abcesses are the first to show themselves. Lastly, some globules making their way through the capillaries of the lungs reach the left heart, and so on to the rest of the organism by means of the branches of the aorta, causing fresh metatatic abcesses in other organs. It has been suggested that purulent infection is possibly due to the transport of pus by the imflamed and suppurating lymphatics, but it is difficult to explain the passage of a blood globule through

the closely woven network of the lymphatic ganglions.

2. *Erosion of the extremities of the veins.* Undoubted observation exists where the venous extremities in the purulent focus were found open in consequence of ulceration. Sédillot has seen a case where, in a patient affected with purulent infection, after an amptutation of the thigh, the internal saphena was found largely open and ulcerated near the surface of the wound. (The influence of respiration upon the venous circulation is well established, and although this influence may be reduced to a slight degree as concerns the abdominal or thoracic members, nevertheless I can understand that the aspiration of the venous blood, by the dilatation of the thoracic cage, might even reach the pus wherein bathe the open extremities of the ulcerated veins.)

3. *Absorption.* A good number of surgeons believed that the pus globules could traverse the capillary walls from without inward, and in this manner reach the general circulation, but in order to do this they would have to overcome a considerable force: the vascular tension and the exosmotic current of the serum of the blood from the capillaries.

4. *Purulent diathesis.* In order to explain those cases where the obstructing coagulum was found between the suppurating portion of the vein and the liquid portion of the blood, Tessier, of Lyons, advances the following theory: There are certain constitutions, says he, which are predisposed to the formation of pus, just as there are others in which suppuration is very rare and with which all cuts and wounds heal by first intention without any farther accident. This is very true, but I am far from concluding therefrom that purulent infection is the result so to speak, of suppuration of the blood.

It is generally admitted that metastatic abcesses are formed by an irritation or inflammation, which the

presence of the pus causes to the tissues in which it is lodged, and in this manner we can easily explain why these abcesses are more frequent, more numerous, more recent and also farther advanced in the lungs (which the pus globules traverse first of all) than elsewhere.

Virchow's doctrines. V. admits neither phlebitis nor the transport of the purulent globules by the veins. His explanation of the increase of the white globules in the blood, the coagulum of the vein and the metastatic abcess is as follows:

1. In purulent infection there nearly always exists an erysipelas, an angioleucitis, adenitis or an enlargement of of the spleen; now in all these cases the spleen and the lymphatic ganglions present an exaggeration in the functions, which consists in the formation in great abundance of white blood globules, and constitutes what Virchow calls *symptomatic leucocythosis.* (I have already observed that Virchow and Robin consider the pus and the white blood globule or leucocyte as one and the same element, and it is in this manner that Virchow explains those cases where the veins and the right heart were found to contain pus.)

2. The coagulum does not suppurate, nor is it the result of phlebitis, the inflammation of the veins acting upon its walls roughen them at their inner surface, and it is here that the fibrin of the blood coagulates and thrombosis is the result. The coagulum or thrombus augments insensibility in length, and gradually extends until it reaches a vein of larger calibre, into which it protrudes like a bud; the fibrin at its centre becomes granular and transforms itself into a sort of jelly, which has been mistaken for pus. The extremity of the thrombus, advancing into the larger vein, is being continually bathed by the venous current, which disaggregates insensibly the surface of the coagulum and carries away its

substance, atom by atom. These parcels of the thrombus, finding themselves in the venous circulation, reach the lungs, but the smaller portions do not remain here, they reach the left heart and the arterial capillaries where they accumulate, and obliterate some of the smaller vessels, and consequently deprive the corresponding tissues of life, at least, if the collateral branches do not speedily establish the circulation. If this fails to take place, a necrobiosis of the anatomical elements and the formation of an abcess is the result.

In certain cases a large fragment detaches itself from the thrombus and obliterates an important branch of the pulmonary artery and determines partial gangrene of the lungs, a pneumonia, or even asphyxia, if the fragment is large enough. We see, therefore, that Virchow explains the formation of metastatic abcesses by embolism.

Which of all these doctrines are we to adopt? Which is the true one? I beleive that we can not be exclusive in either case; certain it is, that the pus globules must penetrate into the circulation in order to develop purulent infection. Sédillot's experiments prove this beyond a doubt. Can the infection be produced by the serum? It is possible, but as yet demonstration is wanting. Surely, in the great majority of cases, we can explain the accidents by the development of suppurative phlebitis and the mixture of the pus with the blood, and why should we not admit the introduction of pus into the veins where erosion of these vessels exists. As for myself, I still believe that suppurative phlebitis plays the great role in the production of the evil, not because this has been more particularly defended by French surgeons, but because it seems to me in accordance with the symptoms of the disease.

Maisonneuve's System. Prof. Maisonneuve, of the Hotel Dieu, professes ideas on surgical intoxication quite differ-

ent from the above.* All fevers, purulent and putrid infection, erysipelas, etc., etc., are, according to his theory, the result of introduction of toxic substances into the economy. These substances are the normal elements of our tissues, liquids and solids, which have lost their vitality and become disorganized, owing to the influence of air, heat and humidity, exactly like vegetable or other animal matter which putrefies, and the accident which develops itself, will be in conformity with the nature or the quantity of the poisonous principle introduced into the system.

I need not say that Maisonneuve, with the great body of surgeons, admit suppurative phlebitis as the principal cause of purulent infection, but he occupies himself little with the etiology of the disease or the manner in which these toxic substances enter the economy; they enter necessarily by the absorbing vessels, be they liquid or solid corpuscles. That which, acording to him, is more important for us to study is to endeavor to prevent their penetration, and all his offorts are made in this direction. Therefore, in many of his operations, where it is possible, he tries to open the least possible road for the introduction of the poison or to prevent its formation; for that reason he resorts much to subcutaneous operations or the employment of his *ligature extemporancé* (in fistules of anus, phymosis, etc.,) which crushes and closes the cut vessels and so renders it difficult for the deleterious substances to enter, which the bistoury could not do. Maisonneuve resorts to the knife only in exceptional cases; for the frequent use of the caustic, he gives the same explanation, and indeed, no one can deny that the caustic destroys the tissues surrounding it, coagulates the liquids and prevents putrefaction. Lastly, if the wound does

*Memoire read at the Academy of Science, December 10, 1866.

suppurate, when mortification and putrefaction of the liquid or solid matter has set in, Maisonneuve has recourse to his process of *continued aspiration*. This mode of treating suppurating wounds seems very rational to me, is known to your readers, and I need not describe it here, but besides freeing the surface of the wound from the stagnating pus and keeping it from coming in contact with the air, Maisonneuve employs as dressings, antiseptic liquids, such as alcohol, phenic acid, etc., which have the property of coagulating the albuminous fluids and which form a sort of layer, more or less impermeable, aiding much in diminishing the chances of absorption. Be this as it may, I can affirm that Maisonneuve, who certainly does not shrink from the most hazardous operation, and who has a large ward of patients under his care, very seldom loses a case from purulent infection, erysipelas, etc., diseases so much dreaded and so fatal in our Paris hospitals. I believe that this mode of treatment is worthy of a trial, and, if thereby, we can prevent that most formidable of surgical accidents, purulent infection, the author will have done much for suffering humanity. R. Good.

New York City, July 1, 1869.

The warm weather has come down very suddenly upon us, and this has been decidedly the hottest week of the season. On June 28th the thermometer stood at 89 degrees and on that day the first case of sunstroke occurred, followed by two or three cases more the next day. The mortality of the city is light as yet, but will be certain to increase as the season advances. In Brooklyn, as well as in our city, for the past few weeks a very severe epidemic of measles has been raging, which, week before last, carried off between forty and fifty victims.

Small-pox has been somewhat prevalent, especially in the neighboring city of Hoboken.

Dr. Stephen Rogers delivered an interesting lecture on "Summer Mortality," a few evenings since, in the Academy of Medicine. "The following instructive comparative statistics of the deaths in London, Paris and New York, during the past year, were given: The numbers who died in these cities during the quarters ending with dates named, are as follows:

	1868. June 30.	1868. Sept'ber 30.	1868. Dec'ber 31.	1869. March 31.
London.....	7,000	11,400	12,060	11,080
Paris.....	10,865	10,520	18,000	11,850
New York.....	5,540	8,670	4,760	5,500

Dr. Roges spoke of the probable causes of the increase in the rate of mortality in this city during the summer. It has been the popular belief that humidity of the atmosphere contributed to this increase, but experience tended to establish the fact that intensity of heat was the primary cause. One of the results of excessive heat was sunstroke, from which in New York, 133 died in 1863, 37 in 1864, 11 in 1865, in 1866 (an intensely hot summer) 310, and 171 in 1868. The leading symptom in sunstroke was depressed vitality. Much had been learned in regard to the treatment of such cases by copying from the unenlightened Indians, whose natural instinct had led them to keep the body wet and cold by external appliances of water, in order to avert the attacks of the disastrous heat."

The Medical Gazette announces that "a new association of physicians has been organized in this city under the title of the "Society for Reporting the Progress of Medicine." It consists of one member representing each department of medical science, each of whom in turn is to prepare a report of the advances made, abroad and at home, in his department. The rapid strides now making

in almost all branches of scientific investigation, render it nearly impossible for the most industrious reader to collate all that is new and valuable from the various sources of information, and if the purpose of this society be faithfully carried out, its proceedings will be of great interest to the medical profession."

The total number of deaths in Brooklyn last week was 177, an increase of 33 over the mortality of the preceding week. Of these, cholera infantum carried off 28, consumption 18, convulsions 15, measles 14, diarrhœa and disease of brain, 8 each, hydrocephalus and pneumonia, 6 each, premature birth and debility, 5 each, scarlet fever, dysentery, erysipelas and bronchitis, 4 each, typhoid fever, diphtheria, heart disease and dropsy, 3 each, remittent fever, enteritis, apoplexy, disease of liver and whooping cough, 2 each, cholera morbus, syphilis, etc., 1 each.

During the year 1868, there were treated in the Brooklyn City Hospital 1660 patients; 947 surgical and 713 medical. An Orthopædic Infirmary was added to the hospital in June, 1868. This is intended for outdoor patients only. One hundred and twenty-five patients have been treated in it during the first six months. The vacancy in the position of Visiting Surgeon to the Brooklyn City Hospital, occasioned by the death of Prof. DeWitt C. Enos, has been filled by the appointment of Dr. S. Fleet Spier, of that city.

Speaking of appointments, Dr. Lewis A. Sayre, of this city, has been elected an honorary member of the Medical Society of Norway, Christiana.

Did you notice, Mr. Editor, the account of the experiment of Dr. J. S. Lombard with his thermo-electric apparatus? He has applied this delicate instrument to the study of the effect of respiration on the temperature of the blood, and has found that very cold and dry air taken into the lungs does not lower the temperature of the

blood sufficiently to affect his apparatus, which will indicate any change of temperature exceeding 12.000 of a degree centigrade; and this may be accounted for by the fact that at low temperatures the air is more condensed and a large proportion of oxygen is inhaled, and by its conversion a larger amount of heat is generated.

Yours, very truly, JAMES B. BURNET, M.D.

MR. EDITOR: I take the liberty of asking you to lay the following correspondence before the readers of your journal with the hope that the process described may be of use to the medical profession, and to set myself right before it in reference to the history of *glycerined, carbolic putty*.

Very respectfully,

THOS. E. JENKINS, Apothecary.

LOUISVILLE, February 23, 1869.

WILLAM PROCTOR, JR,, Philadelphia:

MY DEAR SIR: I take the liberty of dropping you an additional line apropos of glycerine as an excipient.

During our sojourn in Europe in 1867, you may remember Dr. Lister, of Glasgow, was experimenting with carbolic acid, with a view to its use as a surgical dressing. He found that one of the most convenient and efficient modes of applying this agent, was to incorporate it with glazier's putty. This was a good idea, for the putty is plastic' handy, cheap, not uncleanly, and adapts itself well to any irregular surface. This close contact is advantageous in two ways: it brings the medicament in intimate connection with the parts to be healed and it serves the IMPORTANT PURPOSE of excluding the atmospheric air with its myriads of germs of organisms, thus preventing the action, whatever it may be, of this supposed prolific source of trouble, spores floating in the air, upon sores and exposed denuded surfaces, to say nothing of the influence of atmorpheric OXYGEN upon parts of low vitality and struggling to resist surrounding destructive agents and processes, (its "levelling" propensity?)

This putty, however, is not the best vehicle for the purpose intended, for it dries pretty rapidly and "sets," it becomes rigid and finally hard, thus getting into a condition calculated to do much harm and to occasion great discomfort. Having been applied to to overcome this diffi-

culty, glycerine instantly suggested itself to me and I proposed to make a putty with this valuable body instead of linseed oil. The experience of a year and more has established the great value of the improvement. The formula I framed gives a preparation possessing the proper consistence and one which maintains its properties unimpaired, when kept in closed jars, for a long time.

I. Carbolic glycerine, (T. E. J.)

R. Carbolic acid, 1 part.
Glycerine, 4 parts.
Mix.

II. Carbolic plaster, (T. E. J.)

R. Carbolic glycerine, 34 parts.
Prepared chalk, 94 parts.
Mix well by kneading, and inclose in closely stopped jars.

This preparation will, I think, be found to be all that is desired.

Yours, very truly, THOS. E. JENKINS.

PHILADELPHIA, June 10, 1869.

DR. THOMAS E. JENKINS, Louisville, Ky.:

MY DEAR SIR: The above is a carefully made copy, word for word, of your letter to me, received about the 26th of February last, too late for the March number of the American Journal of Pharmacy. It was put by for the May number, and by an accidental misplacement was overlooked, until too late for the May number. I had placed it in hand for the July number when your note arrived requesting a copy of it. I regret that my oversight has been the means of causing you trouble on the score of priority.

Very truly yours, WILLIAM PROCTOR, Jr.,
Editor of the American Journal of Pharmacy.

REVIEWS AND BIBLIOGRAPHICAL NOTICES

"Judex Damnatur cum nocens Absolvitur."

A TREATISE ON THE FUNCTIONS OF DIGESTION: ITS DISORDERS AND THEIR TREATMENT. By F. W. PAVY, M.D., F.R.S., Fellow of the Royal College of Physicians; Senior Assistant to, and Lecturer on Physiology, at Guy's Hospital. From the second London Edition. Philadelphia: Henry C. Lea. 1869.

Dr. Pavy has, in this monograph of 246 pages, given a *résumé* of all that is necessary for the general practitioner to know about the physiology and pathology of the alimentary canal and its appendages, to enable him to treat scientifically the various forms of indigestion that occur most frequently. He and Dr. King Chambers, who has

also written a monograph upon the same subjects, are regarded as the highest authorities; and, although they differ somewhat in their views of physiology, still their conclusions resulting from extensive and critical clinical observations are, for the most part, identical.

Dr. Pavy assumes that the essential parts of the process of digestion occur in the stomach and small intestines; all the other parts, such as prehension, mastication and insalivation, being necessary. Consequently the term dyspepsia can be applied only to derangements occurring in those portions of the alimentary canal. "Defective mastication," says he, "may lead to indigestion, but no one looks upon imperfect mastication as constituting a form of indigestion." The same may said of defective deglutition, still no one will regard dysphagia as a form of dyspepsia.

Thus limiting the ultimate process of digestion to the stomach and small gut, he makes three classes, to one or the other of which all the symptoms indicative of indigestion are referable, viz: "(1) to perverted sensibility, (2) perverted muscular action, or (3) perverted secretion."

The first one hundred pages are devoted to the consideration of the digestive process as far down as the junction of the stomach with the first part of the small intestine. The function of the saliva and the gastric juice, the acts of prehension and mastication, and deglutition are concisely stated, and the author's theory to account for the escape of the stomach from self-digestion, is fairly and clearly presented.

The next sixty pages embrace the study of the various derangements of this portion of the canal, viz: dysphagia, vomiting, eructation, gastrodynia, flatulence, cardialgia, pyrosis, and acidity.

Next comes the physiology of intestinal digestion, including the study of the various secretions which flow

into this portion of the tube from the intestinal glands, the pancreas and liver. The glycogenic function of the liver is specially considered, and the peculiar views of the author, in reference to this function, in opposition to those of Bernard, are boldly advanced. Then follow chapters devoted to the study of derangements of this portion of the canal, viz: colic, enteralgia, tympanitis, diarrhœa, constipation, etc.

The book closes with a chapter on "artificial digestion as a means of dissolving meat for producing an article of nourishment for the invalid." J. M. H.

PRACTICAL OBSERVATIONS ON THE ÆTIOLOGY, PATHOLOGY, DIAGNOSIS AND TREATMENT OF ANAL FISSURE. By WILLIAM BODENHAMER, A.M., M.D., etc., etc. New York: Wm. Wood & Co., 61 Walker street. 1868.

In this monograph of one hundred and ninety-two pages the author gives not only the literature of the subject, but presents the conflicting opinions of eminent surgeons, from the time of Boyer to the present day, in regard to the pathology and treatment of anal fissure.

He demonstrates clearly, by clinical records, the relation existing between anal fissure and spasm of the sphincters, taking the opposite views to the one entertained by Boyer and others. He considers the anal spasm the result of the anal fissure. "This spasmodic contraction," he writes, "is a phenomenon which may or may not accompany fissure of the anus. It is not the anal spasm that constitutes the disease, for anal fissure may exist without this arbitrary contraction; but such contraction of the *sphincteres ani* never exist without an irritable fissure, an inflammation, tumefaction, or some other primary disease of the inferior extremity of the rectum; or of some disease of the genito-urinary organs."

The importance of this view of the pathology of the disease is not less striking that the revolution in the treatment which must necessarily result from it. For while Boyer and Dupuytren, Brodie and others, regarding the spasm as a primary and essential condition, deemed incision or rupture of the sphincter necessary for the radical cure of the ulcer, the author, on the other hand, has succeeded uniformly in effecting cures without so severe a procedure. He employs the knife only in very intractable cases and then only to the extent of dividing the mucous membrane through the long axis of the fissure.

The author divides the various kinds of fissure into classes according to the site of the disease, viz: (1) Those on the outside of the anal orifice; (2) those immediately within the anal orifice; (3) those situated above the external sphincter; (4) those situated on and a little above the internal sphincter.

His description of the signs and symptoms, rational and physical, his enumeration of the minute details of an examination per rectum with or without instruments and of the various points to be observed in order to accomplish a speedy and permanent cure with the least amount of pain, are concise and graphic. The reader will perceive throughout the whole work marked evidences of close clinical observation, respect for the opinions of others, the absence of dogmatism and a desire to impart, without reserve, full measure of the author's knowledge of a disease with which he has grown familiar by years of experience.

It would be impossible to do full justice to the merit of this little work, without making a full review of it. Those practitioners who read it will find many useful hints to guide them in the diagnostication and treatment of this painful and obstinate malady.

The work is illustrated by a number of well executed

drawings, and by twenty-nine type cases of the disease.

J. M. H.

PROCEEDINGS OF THE STATE MEDICAL SOCIETY OF KENTUCKY—FOURTEENTH ANNUAL MEETING—HELD AT LEXINGTON, KY., APRIL 6th, 1869. Louisville, Ky., 1869. Bradley & Gilbert. From the Committee on Publication.

As these Transactions have been received very recently, it is impracticable to give that detailed notice which they so eminently deserve and which it would be a pleasure to present.

The meeting was in all respects a successful and agreeable one, and the Society has every reason to be gratified at the result. There are now nearly 240 members, and of this number fully forty were elected at the last meeting.

The address of welcome, on the part of Dr. L. B. Todd, is deserving of the credit which was so generally awarded to it, and is replete with that refined and admirable spirit of hospitality, for which the citizens of Lexington are justly distinguished.

It is to be regretted that the Committee on Registration of Births, Marriages and Deaths has been compelled to make so unfavorable a report, in regard to its efforts to obtain from the Legislature a law creating so necessary a Bureau in the State. The committee charged with obtaining from the same source, a bill legalizing dissections has likewise been unsuccessful in its efforts. A third committee, appointed with a view of memorializing the Legislature for means to publish the Transactions of the State Medical Society, has also been unsuccessful. It is to be hoped, that the gentlemen having charge of these valuable and important subjects will be able to give a more cheering report next year. The profession of the State, very justly, looks to them, for the display of more

than usual energy in securing the success of the important work with which they have been officially charged. It requires ability and energy to obtain success at the hands of a State Legislature, but it is believed that the work mentioned is in the hands of those who will succeed, and who will not allow their State Society to endure another disappointment in connection with these most important subjects.

The committee on Medical Biography made a short report. It is to be hoped that the sacred duty of this committee will always be faithfully performed. In no respect are the functions of a State Society more valuable, than in preserving, as a permanent record, all that is instructive, noble, beautiful and beneficial in the lives of its members. All men can say and do say, in regard to every good and great deed of the good or great, *esto perpetua;* and the committee charged with this work will not, either by word or deed, say less!

It is to be regretted that the committee on publication, for the year 1868, were compelled, on the score of economy, to have the Transactions for that year published in Cincinnati. This is a reflection on the publishers of Kentucky, and one, which it is gratifying to see, has this year been removed, by the publishing house that has creditably issued the Transactions for 1869.

An important committee appointed, is that of which Dr. Holloway is chairman; it is the committee charged with ascertaining the relations of pharmaceutists to Medical Societies. Can not pharmaceutists of acknowledged efficiency and scientific merit be members of such societies, without a strict adherence to those provisions of the Code of Ethics, which when strictly observed, renders such membership a source of severe pecuniary loss? This is a question of practical interest, requiring, in its disposition, sound judgment and much common sense. This

Society (and others) will look forward to this report with much interest. Would it not be expedient to give, as an element in this report, the decisions of prominent Societies elsewhere? These decisions could easily be obtained.

The resolutions of the Society, in regard to the death of Prof. Robley Dunglison, are eminently just and appropriate.

It is gratifying to know that the Society has appointed a committee to memoralize the Legislature, for the establishment of a Botanical Garden in this State. Dr. Frazee, the chairman of this committee, it is known, is practically interested in this subject, and the profession hope to hear him give, next year, a satisfactory and cheering account of his labors.

The address of the retiring President, Dr. W. Pawling, is very creditable to him. His motto for the banner of the Society all will endorse, "Science, Union, Peace and good will to all Men." No one could leave a chair with a nobler benediction.

The published papers of the Society are excellent. The report of Dr. T. E. Jenkins, delegate from the Society to the Exposition Universelle at Paris, shows that his time was well spent, and the record that he presents will be read with pleasure and profit by all.

The report on Ethics, by Dr. S. P. Craig, chairman, is well prepared and shows an excellent spirit on the part of its author. He makes a recommendation worthy of special notice; that every medical college should instruct its classes *carefully and fully*, in regard to the Code of Medical Ethics of the American Medical Association. Such work is eminently necessary, and there can be no doubt but that it will command the approval of all physicians.

The report on Vaccination, by Dr. M. E. Poynter, chairman, is excellent. It is a carefully prepared paper and is highly creditable to its author.

The report on the Indigenous Botany of Kentucky, by Dr. L. J. Frazee, chairman, has been prepared with care and fidelity. In this report, Dr. Frazee, after giving a brief but eloquent testimony in favor of Dr. Drake, gives the result of his own labors in connection with the subject of his report, and then concludes by furnishing a biography of the Kentucky Botanist, C. W. Short, M.D. This biography, brief as it is, adds much to the value of Dr. Frazee's report, for all must take pleasure as well as pride in the dissemination of the facts which he has presented, in connection with the private as well as public history of this great Kentuckian. There is appended to this report a list of the medicinal plants indigenous to Kentucky; this list furnishes both their botanical and common names, and comprises the names of over 250 plants.

The Committee on Obstetrics, Dr. G. S. Bryant, chairman, has made a report, involving much labor. Its chief error is the evident aim to be comprehensive, and as the space allowed is but small, this effort at comprehensiveness has been somewhat defeated by a conciseness, that, (however unavoidable) induces incompleteness and occasional obscurity. The typographical errors in the Transactions are most numerous in this report. Attention is called to the fact that the mortality was greatest when women alone were the obstetricians; since men have given their time and talents to it, this mortality has steadily decreased. While there are extenuating facts which ought to have been mentioned, the unquestionable fact given is still significant; showing in men greater knowledge and reflection, greater powers of study and invention, greater nerve, steadiness, and special adaptability.

Wallace's modification of Bethel's forceps, is regarded by the committee as the best. Cory's ovum forceps is con-

sidered the best, not only for its manifest purposes, but also for removal of the placenta after rupture of the cord. The use of chloroform in parturition is fully recommended. Sir James Simpson receives, deservedly due credit for his labors in reducing the dangers and mortality of placenta prævia. Puerperal fever is regarded by the committee as a septicæmia, to be treated with opium, veratrum viride, carbolic acid, the sulphites, permanganate of potash, brandy, beef tea, etc. Puerperal convulsions are "associated" by the committee, exclusively with albuminuria. Is this not an error? The decidua vera and decidua menstrualis are declared to be developed from the mucous membrane of the uterus. Involution of the uterus after parturition is stated to be due solely to fatty degeneration. Does this statement, (fortified, though it be, by the authority of Kilian, Kölliker, Dalton, Bedford and others) rest on a sufficient number of clinical facts and postmortem results to be accepted as a *general* truth? Mayer, of Geneva, is duly accredited with first (1818) having suggested auscultation as a means of diagnosticating pregnancy; and to Dr. John Stearns, of Saratoga, New York, is awarded the credit of having first demonstrated the action of ergot as an excitant of uterine contraction. Attention is properly called to the similar action of the common cotton root (gossypium herbaceum.) The negroes of the Southern States use this root very generally to induce abortion.

Attention is called miscellaneously but profitably to the use of the bromide of potassium in puerperal mania; to the use of carbolized water in the lying-in chamber; to the necessity of an emptied bladder in post-partum hæmorrhage; to Sims' use of the microscope in the investigation of sterility; to the fact that in Great Britain there is one sterile marriage in every ten; that the average number of children to each marriage in that country is

four, in France three, in Germany six, in Spain two; to the statement of Tanner, that the wife of a Scotch weaver had borne fifty-eight sons and four daughters; that six children is the largest number authentically known to have been produced at one confinement; that labor tends to produce fecundity, and luxury to induce sterility; that the history of the Israelites and the emancipated slaves of the Southern States prove unquestionably, that labor and fecundity are at least coincident, etc., etc. The following extract from this report will be read with interest: "It may not be uninteresting to state, that the chairman of the committee has received approximating reports, from many portions of the South, on the subject of the fecundity of the black population, since their emancipation. All the reports agree upon this point; that in a given population, where three children were born during slavery, one or less than one, is born now. And another remarkable feature of the agreement is that, of the number born, at least, half the children of the freed people, die before they are a year old. In corroboration, we quote from 'The Spirit of Missions,' for March, 1869, pg. 139, published in New York, under the control of the Episcopal church. The neglect and desertion of offspring have become deplorably common; the mortality among children proportionately great, and even infanticide by no means infrequent.

"With the examples of fecundity, above cited, we may also include the laboring poor in the rural districts of Great Britain, who have the greatest number of conceptions in the hardest laboring seasons of the year.

"It is stated upon good authority, that among one thousand prostitutes there will not exceed six births annually. It is therefore not illogical to attribute the increase of sterility among the emancipated slaves, to immorality alone. It is also stated in the Spirit of Missions,

pg. 139, that disregard of the marital tie is fifty fold greater to-day among the colored race than it was during slavery," etc. These are all interesting facts as to the influence of emancipation upon the former slaves of the South. Some might attribute these results to ignorance and a general want of cultivation, but Dr. Storer, of Boston, states, that fœticide is fully as common among the most refined females of New England. Here is a fruitful and interesting field for investigation.

Attention is properly called to the difference of practice necessary for the parturient female; this difference is radical and is one of the triumphs of modern pathology. The statement of the committee that marriages between relatives is proportionally less fruitful, and that the children of such marriages are more frequently imperfect mentally and physically, may be gravely questioned. The writings of Dr. S. H. Dickson on this subject, the investigations of Dr. Bachman, with the Egyptian and and Persian records, etc., serve to render this statement of the committee very problematical. To Dr. Ephraim McDowell, of Kentucky, is justly awarded the credit of having first recommended and performed the operation of ovariotomy. The record of Kentucky in the suggestion of this operation is far more creditable, than has been the experience of her physicians in regard to its mortality. The self-retaining catheter of Dr. John Goodman, of Louisville, receives honorable and deserved mention. To Ambrose Parè is awarded the credit of having first amputated the cervix uteri. Clitoridectomy, as advocated by Baker Brown, is condemned. The treatment of vaginismus as recommended by Marion Sims, is said by the committee, to be fully accepted. Is not this an error? Scanzoni and his disciples meet with at least equal success, in the adoption of a treatment diametrically opposite. The fashionable practice of indiscriminately slashing the

uterus is commendably reprehended. This report of Dr. Bryant evinces marked care in its preparation and a manifest familiarity with the literature of the subject.

The report of the committee on pharmacy, by Dr. T. E. Jenkins, chairman, embodies so much matter of novelty and interest, that it will be published entire.

Last in order of publication, comes a valuable and excellent contribution from Dr. G. W. Bayless, of Louisville. This report consists of "five cases of diseases of bone, from common causes, with the results of surgical procedure." The first case is one of periostitis from cold, with abscess in the lower end of the tibia. The operation was that of trephining. The success of the operation was complete and the result unusually satisfactory. The second case was one of ostitis in both tibias with many complications; operation and recovery. The third case, one of great interest, was an operation for excision of the head of the humerus and part of the shaft, for caries, consequent upon exposure and neglect. The success in this case was complete, though the patient unfortunately sank under an attack of Bright's disease. The fourth case was in its material details similar, the result, however, being good. The fifth case was one of removal of nearly one half of the lower jaw for necrosis, from mercurial poisoning, with reproduction of bone. This case, and case three, are particularly interesting, from the fact that, with a complete removal of the periosteum, there was renewal of bone. English, French and Italian surgeons, in common with those of America, still insist upon teaching that the periosteum is necessary for osteogenesis, though clinical facts like these of Dr. Bayless, with many others in possession of the reviewer, not only teach the contrary, but demonstrate the folly of views, to which many of our best operators and writers cling with a most unyielding and inexcusable tenacity. It is to be regretted that the pub-

lishing committee could not spare the space for the comments of Dr. Bayless upon these cases, as much that is now interesting would have been increased in value and importance.

The publishing committee, Drs. S. P. Breckinridge, T. P. Satterwhite and Hamilton Griffin, of Louisville, deserve much credit for the manner in which these Transactions are arranged. There are, of course, very many typographical errors, but these can only be avoided (when they are avoided) by the practiced and well trained eye. The publishers, Messrs. Bradley & Gilbert, are entitled to commendation for the very creditable manner in which they have executed their work. The interest of these Transactions has fully justified a somewhat lengthy review.

MISCELLANEOUS.

"Non Omnes Eadem Mirantur Ament Que."

Analysis of the Life of Dr. William Gibson.—Dr. William Gibson, the son of wealthy and refined parents was born in Baltimore, in 1784. No efforts were spared on the part of his father to develop the talents so early recognized in his son, and he was accordingly sent at an early age to college. Having studied successfully, first at Annapolis, and then at Princeton, he visited Europe in order to pursue his studies at the University of Edinburgh. Three years of diligent work enabled him to graduate as Doctor of Medicine. His thesis, published at this time (in Latin) was justly admired for the ease and grace of the diction, as well as for the decided originality and grasp of mind which it displayed. It was during his first visit to London that the foundation was laid of that friendship which for so many years existed between Dr. Gibson and Dr. Charles Bell. As a student, in Dr. Bell's family, he profited by the instruction of this great man, and later in life, when again and again visiting Europe, they met on the more equal ground of brother physicians and colaborers in the great field of Science.

In 1809, during his first sojourn abroad, though quite young, on hearing that the battle of Corunna was about to be fought, he obtained letters from influential friends, and receiving some merely formal appointment, through the agency of this official position, went on board a transport and was present during the engagement.

On another occasion Dr. Gibson, though a mere youth, was taken by Sir Astley Cooper to see him operate for hernia on some learned author of celebrity; an honor which, in common with others, he was very fond of narrating to social friends.

While going through the wards of a hospital with Velpeau, that surgeon brought him to the bedside of two men who were under treatment for some slight fracture. "Would you believe it," said Velpeau "those men have made a living for the last fifteen years, by being knocked down and run over. When they see a light wagon driven by some wealthy person coming by, they step across the street, and are sure to be run over, picked up, carried to the hospital, and sue for damages; and when their money becomes exhausted, they begin again. Nearly every bone in their bodies has been broken."

Dr. Gibson was traveling in the vicinity of Waterloo, at the time of the battle, and immediately secured the means of being present at that engagement, during which he was slightly wounded. He removed the ball from Winfield Scott at the battle of Lundy's Lane.

During his European experience, it was his good fortune to meet with and become intimate with many of the most prominent men of this century; who they described in a genial manner in his "Rambles." Among these may be mentioned Napoleon Bonaparte, Lord Byron, the two Moores, Dugald Stewart, Sir David Brewster, Horace Hastings, Benj. Brodie, Sir James Clark, Lord Jeffrey, Bell, Roget, Madame Lafayette, Dr. Bostock, Ricord, Dr. Hasting of Worcester, Sir Harry Halford, Abernethey, Pott, Hunter, Victor Hugo, etc.

Immediately on his return from Edinburgh, after graduating, he commenced the practice of medicine in Baltimore, and was one of the founders of the University of Maryland. Although only a little past his majority, he held with distinction the chair of surgery in this Institution. A taste for mechanics was early displayed, he having at seventeen built a small house for his amusement, and afterwards constructed a row-boat.

Doubtless this was built in furtherance of his taste for fishing, a sport which to the day of his death he practiced with pleasure. He often declared that twenty years had been added to his life in consequence of his love for mechanics and open air amusements. As a gentleman he was accomplished and many have spoken with enthusiasm of the fascination he exercised, by his sparkling wit and (at times) genial manners. No man more keenly enjoyed a joke, and one of a practical character is related in regard to himself and a young lawyer of Baltimore. It seems that this lawyer and Dr. Gibson were in the habit of passing many hours together in rambles in pursuit of game in the neighborhood. One day while fishing, they were annoyed and finally assaulted by a rough fisherman who claimed some prior right to the spot which the young men had chosen. With an irrascibility, which was unfortunate, Dr. Gibson fell upon the fisherman and unaided by his friend, succeeded in administering a sound cudgelling. A few days afterward finding that the fisherman was bringing suit against him for severe damages, he, very naturally, left the whole defence in the hands of the lawyer, who as much as himself had been the original cause of the quarrel. Imagine his surprise on receiving, some weeks afterwards from his friend, a bill for services rendered, in delivering him from the vengeance of the fisherman. Without any expression of his contempt for so ungenerous an act, he paid the sum promptly and invited the lawyer to accompany him upon another fishing expedition the following day. After a morning of fine sport, the two friends rested under the shade of the trees to refresh themselves with a bountiful dinner which Dr. Gibson had had prepared. A little tartar emetic carefully distributed in that portion to be enjoyed by the lawyer was the means by which Dr. Gibson gained his playful revenge. Not many minutes after dinner, the lawyer being suddenly and painfully ill, was carefully carried by his sympathetic fellow sportsman to an adjoining farmhouse. Several days of quite severe illness followed, during which he was *judiciously* nursed by his friend, at the end of which time the doctor dismissed the case as sufficiently cured, and sent in his bill for professional services. It is hardly necessary to state that the bill amounted to the exact sum charged by the lawyer for the exercise of *his* professional skill.

While he was still young he removed, in 1819, to Phil-

adelphia, as successor to Dr. Physick, in the chair of surgery in the University of Pennsylvania, a position which he held with distinguished honor for thirty-six years. As a lecturer he was clear and emphatic; his voice was distinct and melodious, his language was well chosen and his style of enunciation most attractive. His demonstrations of surgical anatomy were readily comprehended by the student; some of them especially, as those in connection with the neck, with hernia and with lithotomy, could not be surpassed in lucid exposition. For purposes of demonstration, Dr. Gibson had prepared and procured by purchase, an ample collection of morbid structures, diseased and fractured bones, models and casts, as well as pictures of large size, illustrative of disease and of the anatomical parts of the body involved in operations. To these were added the approved mechanical appliances of the day. He is said to have had no superior at this time as a lecturer, and it is a remarkable fact that at the present day there is no section throughout the country, in which a tribute to his rare eloquence may not be heard from men once his students, but now grown gray in the exercise of their profession. His energy was, perhaps, as remarkable as his talents, and there are few men who accomplished more real work than Dr. William Gibson. He added much to his reputation, by publishing a faithful account of some interesting cases of dislocation of long standing, where he tried by means of force to reduce the luxation. Though he had before been successful in similar cases, the arteries were ruptured and the patients died. As a warning to other surgeons, and with a desire to offer his experience in these instances, he furnished the profession with a valuable brochure on the subject, which is constantly quoted in this country and abroad.

He was also one of the few medical men who could baast of having performed the Cæsarean section twice on the same woman, on different occasions, and with the surprising result of the recovery of both mother and children. This was a great triumph for American surgery.

Dr. Gibson's "Surgery" has reached its ninth edition, and is still quoted as authority. Some of his remarks and suggestive hints as regards treatment of the knee-joint, have much weight with the modern practitioner.

To the day of his death his mental activity was unimpaired. He kept a voluminous diary for sixty years, embracing about one hundred and fifty volumes.

It was thought, by those who know him best, that at the time of his death he was preparing for publication a book relating to his last European researches. His memory was remarkable. A friend, writing of him since his death, says: "On one occasion, he said, incidentally to me, that he could repeat the first three hundred lines of the second book of Virgil. On the strength of this assertion, I immediately quoted the first line; and, true to his word, the old gentleman went on, line after line, till I declared myself satisfied."

He resigned his chair in the University of Pennsylvania in 1855, and passed the succeeding five years abroad. On his return to this country he selected as his home a lovely cottage in the vicinity of Newport, which was his home to the time of his death. At the advanced age of eighty-four he died in Savannah, Ga., whither he had gone on account of his feeble health, in 1868.

Dr. Gibson was twice married, his first wife being Miss Hollingsworth, of Baltimore, Md.; his second, Miss Smith, of Loudoun county, Va. He had five children by his first wife—Willliam, who died when a youth; Thomas; Charles Bell, a distinguished surgeon, who died in Richmond, Va., April, 1865, after having achieved a brilliant reputation both as a surgeon and as a lecturer; Sarah, Mrs. Dr. John Reese, of Philadelphia; Mary. By his second marriage he had two children; Grace, now Mrs. Henry Carey, of Baltimore, and Ella.

Dr. Gibson was not only industrious and successful in the practice of this profession, but he was always a close student and a successful author. The list of his chief publications is as follows:

Principles and Practice of Surgery.

1809.—Dissertatio Physica Inauguralis—DE Forma Ossium Gentilitæ—etc., etc.—Edinburgi. 1 vol.

1841—Rambles in Europe in 1839, being sketches of prominent surgeons. 1 vol. 309 pages.

1841, November 1—Introductory lecture to a course on the Principles and Practice of Surgery in the University of Pennsylvania. Pages 34.

1843. November 4—Lecture as above. Pages 24.

1844. November 6—Introductory before the medical class ot the University of Pennsylvania. Pages 25.

1848—Lecture correlative to a course on surgery in the University of Pennsylvania, embracing a short account of eminent Belgian surgeons and physicians, etc., etc.; delivered December 22, 1847. Pages 32.

1850—Three lectures, preliminary to a course on the Principles and Practice of Surgery, delivered on the 4th, 8th and 9th of October, 1849; before the medical class of the University of Pennsylvania. Pages 57.

The writer is indebted for much of the information contained in this biography to Dr. S. S. Francis, of Newport, Rhode Island.

THE OILS WE BURN—WHY MOST OF THEM ARE DANGEROUS.—Captain Crawford, special agent of the United States Treasury Department at Washington, has been sent out to examine the various kinds and qualities of coal oil used on steamboats on the Western waters. We may explain, in this connection, that coal oil which cannot bear a test of *one-hundred and ten degrees* is not a safe oil. The test is made by a scientific instrument, entirely correct, and can not fail to show the real quality or value of the oil under test. We give the results of tests made upon several samples of oil presented for examination. No. 1 flashed at 74°; burned at 78°. This oil is very dangerous—not as safe to keep in one's house as an open keg of gunpowder. The man who made this oil has about as much conscience as a bronze statue, certainly no more. Capt. Crawford remarked that a man who would manufacture such life-destroying stuff should be placed in a prison to prevent him from killing somebody. No. 2 flashed at 77°, and burned at 80°. This oil is also very unsafe, in a fact, but very little better than the first. No. 3 flashed at 82°, burned freely at 85°. Not a safe article by any means, but somewhat better than the previous samples. No. 4 showed slight indications of flashing at 110°, but would not make a perceptible blaze until 114° were reached, and could not be made to burn short of 120°. This oil is perfectly safe, even if exposed. A lighted match was dipped into it at a heat of 120 degrees, and the blaze was put out by its contact with the fluid.

We will now inform all who use coal oil in their houses how they may avoid accidents from impure and dangerous oil. Take a small vessel, fill it about half full of water and place it over a moderate fire. Pour a quantity

of the oil you have just purchased into another vessel, small enough to go into the first named vessel (a small tumbler or teacup), then drop into the vessel containing the oil an ordinary thermometer. Light a match and apply it to the surface of the oil; if small flashes of light appear before the indicator in the thermometer shows 103° or 110°, take the oil back at once to the dealer from whom you bought it, for such an article is exceedingly unsafe to keep about your house, and may, at any moment, cause serious injury to persons or loss of life in your family. Oil is only safe when it can stand a test of 110° in the manner described, and persons cannot be too careful as to what kind of burning fluids they use in their houses, especially in private residences. Many steamboats, which might have been saved, have been destroyed on the Western waters by having large quantities of impure coal oil on board. Many lives have been destroyed through the explosion of spurious and impure petroleum oil.

We trust that a general law may be soon be enacted by our Legislature, compelling every dealer in coal oil to have such merchandise properly tested before being allowed to vend it to the public. Then we may expect to hear no more of frightful deaths from coal-oil explosions. [—*Exchange.*

The Medical Society of Washington, D.C., and the Colored Doctors.—As will be seen by the report of the proceedings of the District Medical Society, that organization decided adversely upon the application of the colored doctors Purvis and Augusta for membership. As there seems to be considerable misapprehension as to the effect of that vote upon the professional standing of the colored physicians rejected, it may be proper to say that their legal status as practicing physicians is not affected in any manner. The question last night was simply that of admitting them to social fellowship. The Board of Examiners of the Society granted license to Drs. Purvis and Augusta to practice, as soon as they made application, and it is claimed that this is the first instance in the country where any medical society has given colored practitioners any status. The society did not quite come to the mark of receiving the colored doctors into social affiliation but they have shown themselves quite as exclusive in regard to numerous white applicants in the past

and we have no doubt that the colored practitioners will, as they become better known, be able to dispel every prejudice to their social disadvantage.

The Medical Society of this District was formed with a view to prescribing a test of qualifications for practitioners in order to shut off quackery. The Board of Examiners of the Society are authorized to license applicants to practice who are able to show themselves properly qualified, and by the charter of the society every person who undertakes to practice without such license is liable to a fine of $50 in each case. It is not requisite that the applicant shall be of any particular school of medicine but he must show a knowledge of medicine and the qualifications for practice. Drs. Purvis and Augusta have received their licenses from the Medical Society here, as above stated, and have all the legal rights of any practitioners in the District.—[*Washington Paper.*

Southern Historical Society.—There was a regular meeting of this society last evening, in the office of the Howard Association, which was well attended, and important business transacted. Gen. Braxton Bragg officiated as President, in the absence of Dr. Palmer.

The permanent constitution and by-laws were read, adopted and ordered to be published.

Letters were read from a number of the Vice Presidents elected at a previous meeting.

We append an official list of the offiers of the society:

OFEICERS OF PARENT SOCIETY, NEW ORLEANS, LA.

Rev. B. M. Palmer, D.D., President; Gen. Braxton Bragg, Vice President; Joseph Jones, M. D., Secretary and Treasurer.

ADVISORY COMMITTEE

President, Vice President and Secretary ex officio, J. Dickson Bruns, M. D., Hon. Thos. J. Semmes, W. S. Pike, Gen. Harry T. Hays.

VICE PRESIDENTS OF STATES.

Gen. R. E. Lee, Virginia; Hon. S. Teakle Wallis, Maryland; Gen. D. H. Hill, North Carolina; Gen. Wade Hampton, South Carolina; Hon. Alex. H. Stephens, Georgia; Admiral R. Semmes, Alabama; Gov. Isham G. Harris, Tennessee; Gov. D. G. Humphreys, Mississippi;

Col. Ashbel Smith, Texas; Gen. J. C. Breckenridge, Kentucky; Gen. Trusten Polk, Missouri; Hon. A. H. Garland, Arkansas; Hon. S. R. Mallory, Florida.

The following able address was read by the Secretary and Treasurer, Dr. Joseph Jones, and unanimously adopted. It very fully explains the objects and scope of the society:

OFFICIAL CIRCULAR.

On the 1st of May, 1869, after several preliminary meetings, a number of gentlemen in the city of New Orleans formed themselves into a permanent association, under the style of the "Southern Historical Society," with the following general outline:

A parent society, to hold its seat and its archives in the city of New Orleans with affiliating societies to be organized in all the States favorable to the objects proposed; these in their turn branching into local organizations in the different townships—forming thus a wide fellowship of closely coördinated societies, with a common centre in the parent association in this city.

The object proposed to be accomplished is the collection, classification, preservation, and final publication, in some form to be hereafter determined, of all the documents and facts bearing upon the eventful history of the past few years, illustrating the nature of the struggle from which the country has just emerged, defining and vindicating the principles which lay beneath it, and marking the stages through which it was conducted to its issue. It is not understood that this association shall be purely sectional, nor that its labors shall be of a partisan character.

Everything which relates to this critical period of our national history, pending the conflicts, antecedent or subsequent to it, from the point of view of either or of both the contestants; everything in short, which shall vindicate the truth of history is to be industriously collated and filed; and all parties in every section of the continent, who shall desire to coöperate in the attainment of these ends, will be welcomed to a share in our councils and our toils.

It is doubtless true, that an accepted history can never be written in the midst of the stormy events of which that history is comprised, nor by the agents through whose efficiency they were wrought. The strong passions which are evoked in every human conflict disturb

the vision and warp the judgment, in the scales of whose criticism the necessary facts are to be weighed; even the relative importance of these facts cannot be measured by those who are in too close proximity. Scope must be afforded for the development of their remote issues before they can be brought under the range of a philosophic apprehension; and the secret thread be discovered, running through all history, upon which its single facts crystalize in the unity of some great providential plan.

The generations of the disinterested must succeed the generations of the prejudiced before history, properly termed such, can be written. This, precisely, is the work we now attempt, to construct the archives in which shall be collected these memories to serve for further history.

It is believed that invaluable documents are scattered over the whole land, in loose sheets, perhaps, lying in the portfolios of private gentlemen, and only preserved as souvenirs of their own parts in the historic drama.

Existing in forms so perishable, regarded, it may be, only so much waste paper, by those into whose hands they must fall, no delay should be suffered in their collection and preservation.

There is, doubtless, too much that is yet unwritten floating only in the memories of the living, which if not speedily rescued will be swallowed in the oblivion of the grave, but which if reduced to record, and collated, would afford the key to many a cipher, in a little while to become unintelligible for want of interpretation.

All this various material, gathered from every section, will need to be industriously classified and arranged, and finally deposited in the central archieves of the society, under the care of appropriate guardians.

To this task of collection, we invite the immediate attention and coöperation of our copatriots throughout the South, to facilitate which, we propose the organization, of State and district associations, that our whole people may be brought into harmony of action in this important matter.

The rapid changes through which the institutions of the country are now passing and the still more stupendous revolutions in the opinions of men, remind us that we stand to-day upon the outer verge of a great historic cycle, within which a completed part will shortly be enclosed. Another cycle may touch its circumference; but

the events it shall embrace will be gathered around another historical centre, and the future historian will pronounce that in stepping from the one to the other he has entered upon another and separate volume of the nation's record.

Let us, who are soon to be in that past to which we properly belong, see that there are no gaps in the record.

Thus shall we discharge a duty to the fathers, whose principles we inherit, to the children, who will then know whether to honor or to dishonor the sires that begot them; and above all, to the dead heroes sleeping on the vast battle-plains, from Manassas to Vicksburg, whose epitaph history yet waits to engrave upon their tombs.

The funds raised by initiation fees, assessments, donations and lectures, after defraying the current expenses, will be appropriated to the rent or the purchase of a suitable fire-proof building for the safe keeping of the archives.

For the accomplishment of these ends contributions are respectfully solicited from all parties interested in the establishment and prosperity of the Southern Historical Society.

Contributions to the archives and library of the society are respectfully and earnestly solicited under the following specific divisions:

1. The histories and historical collections of the individual States, from the earliest periods to the present time, including travels, journals and maps.

2. Complete files of the newspapers, periodicals, literary, scientific and medical journals of the Southern States, from the earliest times, to the present day including, especially the period of the recent American civil war.

3. Geological, topographical, agricultural, manufacturing and commercial reports, illustrating the statistics, climate, soil, resources, products and commerce of the Southern States.

4. Works, speeches, sermons and discourses relating to the recent conflict, and political changes, congressional and State reports during the recent war.

5. Official reports and descriptions, by officers and privates and newspaper correspondents and eye-witnesses of campaigns, military operations, battles and sieges.

6. Military maps.

7. Reports upon the munitions, arms and equipment. organization, numbers and losses of the various branches

of the Southern armies—infantry, artillery, cavalry, ordnance and commissary and quartermaster departments.

8. Reports of the adjutant general of the late C. S. A., and of the adjutant generals of the armies, departments, districts and States, the available fidghting population, the number, organization and losses of the forces called into actual service.

9. Naval operations of the Confederate states.

10. Operations of the Nitre and Mining Bureau.

11. Commercial operations.

12. Foreign relations, diplomatic correspondence, etc.,

13. Currency.

14. Medical statistics and medical reports.

15. Names of all officers, soldiers and sailors in the military and naval service of the Confederate States who were killed in battle, or died of disease and wounds.

16. Names of all wounded officers, soldiers and sailors. The nature of the wounds should be attached to each name, also the loss of one or more limbs should be carefully noted.

17. Published reports and manuscripts relating to civil prisoners held during the war.

18. All matters published or unpublished, relating to the treatment, diseases, mortality, and exchange of prisoners of war.

19. The conduct of the hostile armies in the Southern States. Private and public losses during the war. Treatment of citizens by hostile forces.

20. Number, occupation, condition, and conduct of colored population. Effects of emancipation upon the negro, and upon the material prosperity of the South.

21. Southern poetry, ballads, songs, etc.

All communications, works and reports must be addressed (by mail or express, prepaid,) to Dr. Joseph Jones, Secretary and Treasurer of the Southern Historical Society, New Orleans, La.

After some further business, the meeting adjourned.

MEDICAL NEWS.

"Nulla Dies, Sine Linea."

Medical College of Virginia.—Important changes have recently occurred in this Institution. Dr. David Tucker, well-known throughout this country for

his personal and social attractiveness; for his wit and genial pleasantry; for his native strength of mind enriched by profitable study; for his success and sound judgment as a teacher, and for ability as a lecturer, has resigned his place as Professor of Practice of Medicine. His successor is Prof. J. B. McCaw, who has lectured on Chemistry in the same college for several years. Dr. Peebles, of Richmond, Va., has been elected to Dr. McCaw's chair; while Dr. J. S. D. Cullen has been elected to the chair of Diseases of Women, rendered vacant by the resignation of Dr. Walter Coles. Dr. J. S. Wellford, it will be recollected, was elected last year to the chair long filled by his eminent father.

MEDICAL DEPARTMENT OF THE UNIVERSITY OF LOUISVILLE.—Dr. Holland has been elected to the chair of Chemistry, made vacant by the resignation of Professor Wright. Dr. David Yandell has been elected to the chair of Clinical Surgery, the duties of which he has previously performed with acceptability to students.

The St. Louis Medical Archives states that the Medical Colleges of Louisville have been engaged in a bitter quarrel and have published their "quarrel-spondence." Who has seen these letters? The editor of that journal has, as Sheridan would politely say, "drawn upon his imagination for his facts." The remainder of the quotation, "and upon memory for his wit," would be added, but the wit of his misrepresentation, with the comments added, is so microscopic as to be inappreciable.

DR. J. M. TONER, of Washington, is laboriously, nobly and successfully engaged in writing the biographies of deceased American physicians. He asks that any one wishing "the life" of a medical friend published, will send him the necessary facts. Every one should contribute to the success of this labor of love and patriotism.

The Nashville Journal publishes, under the ill-judged title of "Bell on Gaillard," an exceedingly scurrilous article by Dr. T. S. Bell, who, incensed by an unfavorable review of one of his literary productions, vents his indignation against the editor of the periodical in which that review appeared, by writing more than twenty pages of puerile verbal hypercriticism and abusive personalities. That such an article should ever be written is a lamentable instance of bad taste in the individual; that it should receive an editorial imprimatur is a reflection on medical journalism.—[*N. Y. Medical Gazette.*

EDITORIAL.

"Nullius Addictus Jurare in Verba Magistri".—Hor.

Now and Then.—Formerly physicians elected as Professors of medical colleges, or as consulting surgeons, consulting physicians, visiting surgeons, visiting physicians, etc., at public Institutions, were those who had, by demonstrated talent, or by experience, or by a distinguished record, secured the confidence of their medical brethren and the admiration of the public. Now it has ceased to be strange to see those who have not yet doffed their professional swaddling clothes, who have but recently escaped from "the green room" of the colleges, elected to these positions; to see those who have personally but recently passed even the period of puberty, aspiring to positions made classic by men whose histories constitute brilliant chapters in medical literature.

The idea of professional children, scarcely weaned from the professional breast, setting up to be medical teachers, and consulting surgeons, and consulting physicians, and visiting surgeons, and visiting physicians, etc., is simply absurd and ridiculous. The representatives, originators and sanctioners of these absurdities are degrading the profession of medicine and making it contemptible.

This is a most deplorable condition; It is bad enough, that political bodies, or the reckless, or ignorant, or careless custodians of public Institutions should make such ruinous and stupid "elections," but it is indeed incomprehensible, that those who had sufficient acquirement to graduate in medical colleges should not *know* that they are not only incapable of filling such positions, but that their presumption in offering to do so, makes them ridiculous in the eyes of every respectable citizen; professional or unprofessional. Much of these evils are due to the conduct of those physicians who knowing better and who acting more wisely themselves do not make their censure of these great evils felt, both by speech and action. There is a subtle and invisible, yet terrible power in public opinion that, when exercised, is crushing and annihilating. Were physicians to discharge their duty in this respect to the public, to themselves and to their brethren, the spectacle of professional children, of ignorance and presumption in office would be happily rare. How can physicians expect the public to hold empiricism, the synon-

yme of ignorance and presumption, in just derision, when they allow in their own ranks the analogue of this condition to exist, without manifest displeasure or reproach. Will the public ever have a just contempt for the empiric, when they see daily that physicians look silently and complacently, upon even more inexcusable pretenders in their own ranks; upon the now familiar spectacle of children in medicine with but little knowledge and with less experience, holding offices not only of trust, but offices requiring the best talent and the most matured judgment in the ranks of the profession? No one can deny that the highest offices in the gift of the public have been brilliantly represented by young men, but had not these young men achieved a brilliant and admitted record; a record known not only to their immediate circles, but to the general circle of the profession? Where else, than in this country, and when else than in very recent times in this country, is the spectacle to be found, of those who are children professionally and but little more than children personally holding positions specially requiring (for the honor and credit of the incumbent and for the safety of the public) such great acquirements, such acknowledged skill, such sound judgment, and such necessary experience, as shall be beyond cavil and dispute? Is the profession willing to admit, as it does now admit by its silence and inaction, that these great and dangerous evils are incurable and irremediable? The removal of these evils requires the performance of plain duties; it requires the independent expression of opinion; the just and fearless comment upon the irresponsible and discreditable action of those who are made officially responsible for the honor and welfare of Institutions, but who, through ignorance or recklessness, or avarice, or carelessness, or nepotism, or from even worse motives or causes either neglect the honor and welfare of these Institutions or criminally sacrifice them. The voice of the profession can reach and control such men, but if not, it can certainly control those physicians who, taking advantage of the present deplorable irresponsibility and recklessness of the custodians of public Institutions, seek and accept positions, which they (as professional children) are consciously unable to fill with honor, or efficiency, or even respectability. The voice of the profession can certainly remove these great evils, but its action can do much more; it can establish reform. In what con-

sists the strength and the elements of the action which is to create reform? What is the nature of its power? The power of the pen in writing for the press, the power of the purse is sustaining the press (in every part of the country) which invokes reform, which will contribute to it and which is open to all who will contribute to it; the power of giving or withholding support, personal, professional and pecuniary, wherever there is this amenability to censure; the power of private and public recommendation and support; the power of publicly and privately giving advice to those who have any support to give; the power of the vote where it can be directly exercised and where not, the exercise of the power of influence over those who have the right to vote; the power of giving or withholding testimonials; lastly the overwhelming power of opinion openly and often expressed. No one can doubt, but that these are great powers; the power of opinion and action—no one can doubt, but that the necessity for their exercise is not only painfully apparent, but daily increasing. Will physicians use these powers in their own behalf, or will they determine to drift helplessly with the current which is sweeping away what little that there is left of the honor, lucrativeness and respectability of the medical profession?

There is another great lever which in these emergencies accomplishes very much; the lever of the Medical Press. Indeed most of the evils mentioned are due to that familiar and facile eulogy which it is the fashion of the press to bestow upon every Institution, every officer, every appointee, every work, every thing. Is it not time for this error to be rectified? Should there not be a time to blame, as well as a time to praise? The responsibility resting upon the Press is certainly great—no one can doubt but that clear and courteous expressions, of the truth, however painful and damaging such expressions may be, would be most beneficial, and that the evils thus exposed and the authors and supporters of evils thus rebuked would become daily and conspicuously less. Censure, to every well organized mind, is more painful to give, than it is to receive. It is so much more welcome to make friends, than it is to make enemies; to give and to receive praise, than to bestow and receive condemnation. Is not, however, the exposure of evils and the censure of those who originate and sustain

evils one of the most manifest duties of the press? The adoption of a *negative* course may be very popular, and is so, but is not popularity, however desirable, to be spurned, when obtained, thus, by the neglect of manifest duty? The discharge of unpleasant and painful duties may and does alienate many, but not among those whose esteem and respect are desirable; and it is a gain to lose the friendship or even the commendation of others. When the Press is not sustained in such a course, its failure becomes more honorable than its prosperity otherwise.

"The great unwashed" (as a brilliant English writer calls the multitude) may sustain a press which is corrupt and mercenary; which panders to the corrupt instincts of mankind; which connives at wrong, and eulogises those who originate and support it, but the writer (being fortunate in personally and intimately knowing hosts of his brethren) has long been imbued with the conviction that *physicians, as a class, strive to do what is right;* that they will coöperate with the medical press faithfully, as long as it labors to maintain and promote the respectability of the medical profession. There is no surer way of accomplishing this, than by developing all that is approved by the profession, and by censuring whatever tends to degrade and destroy it.

If, then, the medical press will lend its aid in excluding ignorance, and presumption, and professional children (old and young,) from high places, the examination of our present and past will soon cease to manifest the difference between the disgrace and the glory of medicine and medical office; for there is this difference between the present and the past; between those periods of time which we familiarly term Now and Then.

THE BODY OF THE CHEAP SCHOOL CONVENTION.—When this historic, distinguished and successful organization of THREE assembled, on the 21st of May last, in this city, it is well known, after its president, Dr. Bowling, of Nashville, and its secretary, Dr. Bayless, of Louisville, took their seats, that Dr. W. H. Mussey, of Cincinnati, enjoyed the unprecedented honor of becoming *the entire body of that Convention.* It may safely be said, that such an honor in the history of conventions is unprecedented; for there have always been at least a few to share this great distinction.

Hamilton made a reputation by a single speech; Henry achieved greatness by one effort of oratory; Champollion became a philologist of admitted profundity, by one publication; Washington made an apotheosis of patriotism in having been the only one to resign the equivalent of a sceptre, for the independence of the private citizen. These are all wonderful and familiar facts in general as well as in personal history. There is, however, another fact of this character, more wonderful than all, Mussey is the first and only one to be the body of an entire Convention. Hamilton was fortunate; Henry was eloquent; Champollion was profound; Washington was sublime, but it has been reserved for a Mussey to excell them all, and to present, in one burst of professional glory, a spectacle which will long be the wonder of his enemies, the pride, the boast, and the triumph of his friends. Occasionally some vulgarian has boasted, in his own language, of being "a whole team," and this has always provoked admitted skepticism, but who, before Dr. Mussey, can boast of being *a whole Convention?* This is indeed a feat which no man has ever accomplished before, and in the presence of which the most invincible ambition becomes helpless and hopeless. The familiar school-boy's lesson, "what man has done, man can do," must now be transferred from the classic literature of pleasing axioms, and become degraded as a shabby and miserable fable; for Mussey has done what man can never do again.

It is truly said, that sacrifice is the price of distinction, and who has ever endured greater sacrifices than did this distinguished gentleman, on this distinguished occasion. Who can reflect upon the fearful isolation of his position, without the consciousness of horror and dismay; upon an isolation, in comparison with which that of Robinson Crusoe sinks into insignificance. Indeed, when we reflect, that the isolation of "old Robinson Crusoe" is a fiction, while that of Dr. Mussey was a terrible reality, the heroism of this distinguished delegate becomes sublime. One feels that it is the duty of parents to compel their children to bestow upon him that devoted worship which they have delighted to lavish upon the island hero of their childish imaginations.

When Mr. Mantalini, in Nicholas Nickleby, contemplated suicide, and only threatened to become "*a demnition body,*" because he was disappointed in the pursuit of money, Mr. Dickens recognized in the act a manifestation of the heroic, and embalmed his course and his memory for the respect of posterity; but when one not only threatens but actually becomes "*a demnition body,*" in pursuit of the same object, the

language of tribute and apostrophe becomes powerless, and the historian has to rely, for effect, upon the simple record of the fact.

One should suppose that Dr. Mussey would be satisfied with such a brilliant record; that, like Wellington at Waterloo, he could say "this is glory enough;" but Dr. Mussey's ambition is of that "high vaulting character," which, Shakspeare tells us, always "o'erleaps itself." To surpass Hamilton and Henry and Champollion and Washington, in reaping reputation by a single act; to make the isolation of Robinson Crusoe comparatively ridiculous; to be at least as respectable as Mantalini, when he threatened to "become a demnition body" is not enough for Dr. Mussey, he seeks more notoriety. In what way does the reader suppose this increased notoriety is sought? Dr. Mussey, after the discharge of his arduous duties as a delegate to the convention of *three*, returned to Cincinnati, and, taking advantage of his relations as an associate editor of the Cincinnati Lancet and Observer, publishes a very foolish and untrue statement in regard to the writer and two other gentlemen, who, with the writer, have not been enthusiastic admirers of Dr. Mussey's recent appearance before the public. The attack to be sure in point of force and efficiency tends to make that of Dr. Bell (which is the weakest on record) less ridiculous, but as Dr. Mussey courts the notice of the public and is determined to secure it "now or never;" it would be unkind to disappoint him.

Dr. Mussey's first gun demonstrates the fact that he first intended his attack to be a sham battle. He commences by firing blank cartridge. He states that "the *pocket* was the soul of certain members representing certain medical corporations" at New Orleans. Now, it is well known, that the delegate from St. Louis, from Nashville, and the writer have advocated similar views, before they were connected with medical colleges. The force of this polite comment, too, is entirely lost, when it is known that the advocacy of high fees is, in Dr. Mussey's estimation, the path to collegiate ruin; for, after voting in the cheap-school-convention as follows, "*it is our belief that the glory and usefulness of our profession would be enhanced by the adoption of the highest rate advised by the American Medical Associaton*," what does Dr. Mussey do on his return to Cincinnati? He adopts *half* of the *lowest* fee advised by the Association as the policy of his School. Dr. Mussey, like many others, believes that the only way to "put money in thy purse," as a medical teacher in the West, is, by the adoption of low fees; by adopting as the policy of a medical school, that of a corner grocery "to sell cheap and under-bid competition." Thinking thus, and what is more significant, acting thus, his charge of the pocket being the soul of those advocating high fees, is a blank charge.

Next, Dr. Mussey, with becoming and unquestioned reverence, says, the extent of the fee is "the outward and visible sign of the inward and spiritual grace." Comment would be unkind.

In his next paragraph, he states that the writer offered to the Convention, at New Orleans, the same "whereases and resolutions" that were previously offered and that were referred to a committee. Dr. Mussey knows that this statement is untrue, for he made a speech, *a very curious* speech upon the "*motion*" which the writer offered, *after* the "resolutions" had been referred to a committee, and after this committee had (just previously to the offering of the "*motion*") reported upon the resolutions in full. If Dr. Mussey could have seen himself as others saw him, when he was retiring from the rostrum, at the close of that wonderful speech in defence of low-fees, he would have been convinced, with others, that the high-fee policy had enjoyed its greatest support. Indeed, the writer has often thought of that speech with increasing wonder and astonishment; feeling the profoundest sympathy for the speaker, whose friends became so mortified and overpowered, that they were speechless, not being able to say one word in behalf of a cause which they had been sent as delegates to advocate and sustain. It would be charity to say, for Dr. Mussey what he virtually says for himself, that he spoke to "the resolutions" and not to "the motion;" that he did not know, in others words, what he was speaking about, for the "*motion*" was the question before the House. The effect of that effort of Dr. Mussey upon himself was evidently as confusing, as it was upon his auditory. Here is the somewhat damaging and unpleasant proof. He says, "in the course of the discussion, the president was interrogated, as to the character of the resolution, it being considered by the speaker as simply advisory; to which interpretation the president assented." The president did not say this and could not have said it, for there was no resolution before the House. Indeed, Dr. Mussey got himself, his business and his thoughts so muddled, that after grossly failing to make himself intelligible by speaking, he is not yet able to write on the subject, without making the most ridiculous blunders.

In another portion of this attack, he says, with a grandeur that compels admiration and with a dogmatism that some may be swindled into accepting as argument, "this Valley cares not for the exactions of the Atlantic or Pacific slopes; we are a law unto ourselves; we must be regulated by the value of the dollar in our locality," etc. One would suppose that Dr. Mussey believes himself to be a second Rasselas; that he is in a deep and sublime gorge, isolated from the rest of humanity; yet, if this grandiloquent and grand indi-

vidual will exchange sentiments for facts, and sophomorical vaporing for common sense, he will find the price-currents of his city marvellously like those of the "slopes," whose exactions he is so Quixotically bent upon defying. If "we must be regulated by the value of the dollar" (a sentiment delightfully appreciated by the tradesman, and so justly scorned by those who do not recognize *the dollar* as the shiboleth of life) why Cincinnati should charge at least as much as does Boston, New York and Philadelphia, for what is dear in those cities, that is cheaper in Cincinnati? The writer has certainly never paid more for less comfort, than he did in that city, and no one, with judgment or experience, believes that a student could possibly be more fortunate.

Dr. Mussey says free education is the crowning glory of our Institutions. This should be true; general education should be less taxed that the water of our cities, but no one who has read on this subject will make the terrible blunder of applying the same statement to the education of experts. Make medical education cheap or free; fill the ranks further; increase competition; diminish income; diminish judgment, experience, skill; degrade and destroy thus professional proficiency; make physicians poorer, less skillful, less safe, and what will be the result; the public and the profession will both rise up and condemn the reckless advocates of so dangerous and ruinous a teaching!

Dr. Mussey's party asks, why obey the openly expressed wish of the profession, as made known at New Orleans, when there is no penalty for non-obedience? Did Dr. Mussey ever hear the argument of the little boy who endeavored to persuade his companion to take apples from the stand of a good but lame apple seller? "Do it," says the little fellow, "he can't catch you."

Of course there is no principle and no manliness involved in this question. "He can't catch you," may be true of the lame apple seller, but, unless the writer knows nothing of the temper and independence of his brethren, the college that that uses this defence, this plea, will rue the day that it attempted it. It may "put money in thy purse," Dr. Mussey, but for every dollar that goes into it, there leaves you and all who set at defiance the respectable sentiment of the profession, an untold wealth of character, integrity and trustworthiness!

Again it is said, that the expression "sentiment and desire" means *advice*. Those say this who wish to believe it; not those who know the meaning of English; "sentiment" means *judgment*, and "desire" means *request*.

Like many, Dr. Mussey says why respect the action of the Association on this subject, while its action on other subjects is disregarded? Can any question be more puerile? Why

obey one law unless all are obeyed? Why not murder, when society does not punish theft?

Lastly, Dr. Mussey says, the Association did not pass the motion, in regard to fees, "*unanimously.*" Since this gentleman became the entire body of a convention, his ideas in regard to the word, unanimously, are ludicrously original. He believes that it means "with one voice" actually, and that unless questions passed, as they did at the cheap school convention, *with one voice*, they did not pass unanimously.

There was no dissenting voice at New Orleans, and the press and the profession called the vote, as is usual under such circumstances, "a *unanimous* vote." All think thus but the body of the cheap school convention, and too much honor has done for him what much learning did for "most noble Festus!" it has made him "mad."

Dr. Mussey closes his paper, by violently and officiously censuring the physicians of Louisville for having published their unfortunate troubles (the visit of the cheap school delegates here being one of them) in the secular press, while at the same time he censures with great severity those who, he thinks, have interfered in his own public record. What must be the organization of a man's mind, when in the same short paragraph, he censures others for a fault of which he, (in the writing of his paragraph) is grossly guilty. Dr. Mussey obtrudes his opinion in regard to the home record of Louisville physicians, while he censures them for criticising his record which is notoriously public; there being this difference in the two cases, that he criticises acts based upon details of which he is profoundly ignorant, while others censure his acts, based upon details that are public property.

The editor can not imagine why Dr. Mussey and two other old physicians of the West should have attacked him. He is not conscious of having said or done anything that was not said and done for the welfare of his brethren. That he has made errors in publication, judgment, and speech is very probable, but he can not understand why, on this account, his public actions should be constantly maligned and his language purposely misrepresented. It is troublesome and painful to make replies to such attacks, but the writer can not allow his public, even his private character, to be traduced without, at least, some return of the fire. So far, to be sure, he has not found it necessary to use ammunition of greater size than mustard-seed shot, but he protests against being called upon to use this frequently; for all sportsmen know that the use of such shot spoils one's aim for more important game. Dr. Mussey must not think that the writer intends thus to make game of him, for who could be uncharitable enough to make game of one, that had been so pitiably unfortunate, as to be THE BODY OF THE CHEAP SCHOOL CONVENTION.

It is far from the writer's intention to say anything unkind in reply or to wound Dr. Mussey's feelings, but when this gentleman throws down the gauntlet of raillery, he can not object to a Roland for his Oliver.

If the rejoinder be unwelcome, Dr. Mussey has made it necessary, but if it be regarded as unkind, it certainly does not reflect the intention or feeling of the writer. Raillery, of course, can not be agreeable. It is very unpleasant to offer it, but is it not equally unpleasant to receive it? If, then, this rejoinder be disagreeable to Dr. Mussey, he must, and will recollect, that it is a rejoinder. That he and those who agree with him are actuated by honest and upright motives, no one will be so unjust as to doubt, but that others may draw different conclusions from the same premises, and that they may publicly state that in their judgment the course of Dr. Mussey and his friends is very dangerous, no one can undertake to deny. If the comments made herein, or at other times, in regard to such a course of action be regarded as unfriendly, or as dictated by personal or partizan motives, the fact will be regarded by no one with more regret, than by the writer. Having, in common with many persons, (who have a purpose to express, rather than to conceal in language) an aversion to a non-committal style, he has always endeavored to write plainly, but he would not for such a purpose or to attain any object, sacrifice the smallest degree of courtesy. He certainly could not be discourteous to Dr. Mussey, who is deservedly esteemed and respected, and by no one more than by the writer.

THE AMENDE.—The surgical cases published as "Clinical Records" in the last Journal, were excellently reported by Eugene F. Cordell, M.D., Clinical Recorder; his title and office were (as is regretted) omitted.

BOOKS AND JOURNALS RECEIVED.

Resources of the Southern Fields and Forrests, Medical, Economical and Agricultural; being also a Medical Botany of the Southern States. By F. P. Porcher, M.D. Charleston, 1869. From the author.

Physiological Arrangement of the Cranial Nerves. By Edward Rives, M.D. Cincinnati, 1869.

Report of the Commissioners of the Kentucky Institution for the Education of Feble-minded Children, to the General Assembly of Kentucky. Frankfort, Ky. 1869. From Dr. Black, Superintendent.

Monthly Report of the Department of Agriculture, for May and June, 1869. Washington.

The Proceedings of the Georgia Medical Association. Augusta, Ga., 1868-9.

Contributions Relating to the Causation and Prevention of Disease, and of Camp Diseases. Edited by Austin Flint, M.D. New York. 869. From Dr. Joseph Jones.

Franklin Burke.

THE RICHMOND AND LOUISVILLE

MEDICAL JOURNAL.

VOL. VIII. SEPTEMBER, 1869. No. 3.

ORIGINAL COMMUNICATIONS.

"Qui Docet Discit."

ART. I.—GUN-SHOT WOUND: FRACTURE OF FEMUR: RESECTION OF UPPER HALF OF THE BONE—RECOVERY.

By GEORGE CUPPLES, M.D., San Antonio, Texas.

On the first of April, 1866, I was requested to see Mariano Flores, æt. 10, whom I found in an almost moribund condition, from anæmia and exhaustion, the consequence of profuse suppuration from a gun-shot wound of the anterior aspect of the thigh, received in February, 1865, with fracture of the femur, about one inch below the great trochanter; the ball, which was said to be from a minnie musket, had lodged. Very profuse hæmorrhage followed the receipt of the injury, and recurred at short intervals for several days afterwards.

Three abscesses had formed; two of which were opened by the father of the patient, giving exit to portions of bone and clothing, the one situated in the course of the femoral vessels, the other immediately around the trochanters; a third, on the inner side of the limb, broke spontaneously, all having open sinuses, the suppuration from which was excessive.

The boy had been brought, in this condition, from a distance of 180 miles, for treatment, four months before

I saw him. The surgeon who took charge of the case had evidently despaired of benefiting the patient, and after having attended him for three months without adopting any treatment, general or special, had declined seeing him again, declaring no human means could prolong life for a week.

I found him in a state of complete marasmus; pulse 140, the fever of debility excessive, pallor extreme, eyes sparkling, tongue dry, thirst constant and most distressing, appetite gone, tympanitis great, night sweats profuse, urgent tenesmus rectal and vesical. Several small calculi, (phosphatic) have passed within the last five days. He is in the last stage of hectic, but full of hope and courage.

The tenesmus was evidently due, in part at least, to pressure on the rectum and neck of the bladder from the immense tumefaction existing in the left (wounded) side of the pelvis, warranting the belief that inflammation and suppuration had extended into the pelvis in the course of the femoral vessels, and probably in the sheath of the psoas and iliacus internus muscles. This was a most discouraging feature in a case which appeared hopeless, even without this complication. The foot was everted; the knee-joint sound, but flexion prevented by excessive tumefaction of that whole limb, which on careful measurement was found to be shortened four and a half inches.

The most urgent symptoms, the double tenesmus, were relieved by enemata of warm water, frequently repeated, followed by a dose of castor oil, with eight drops of tinc. ferri chlorid, every six hours.

April 2. The tenesmus is entirely relieved and patient much the better for a quiet night's sleep. Assisted by Drs. Madison and Cole, I administered chloroform and made a thorough examination. Through the sinus open-

ing over the great trochanter, a large mass of bone is discovered at the depth of one inch from the surface; by a little manipulation, the probe passes through a fissure to the depth of two and a half inches. Through the sinus formed by the track of the ball, the same mass of dead bone is readily detected, but at a greater depth. Examination by the other two sinuses showed that a large mass of necrosed bone extended as far as four inches below the acetabulum and kept up the enormous flow of pus, estimated at six oz. daily.

It will be admitted that a more hopeless case for operative interference could hardly present itself. The probable extension of necrosis or caries to the acetabulum, with perforation into the pelvic cavity, militated equally against disarticulation at the hip-joint and resection of the diseased and disintegrated portion of the femur, while the extreme emaciation and anæmia of the patient seemed to preclude any attempt to save him. On the other hand, death from exhaustion was inevitable and near at hand; the boy's parents were urgent that something should be done for their child at any risk, while he himself, manifested throughout a resolution and courage which never failed, and which excited the warmest interest in the little hero.

In truth, I must confess for myself, that I sought to justify to my own judgment a hope, which seemed utterly groundless, that something might be done, and I believe the gentlemen who saw the case with me, could give no other reason for the hope that was in them. With their concurrence, then, I consented to operate, should there be any improvement in the general condition; the iron was directed to be given every eight hours, and nutritious diet in such quantities as could be borne.

After a few days of perseverance in this treatment, the general health improved in a remarkable manner; the

tongue became moist, the pulse diminished in frequency and improved in force and volume, sleep returned, the night sweats were controlled and the suppuration diminished sensibly in quantity, while it became more laudable in quality, so that by the second of May I had decided on resection, which was accordingly proceeded with, as follows:

May 2, 4 P.M. Present: Drs. A. E. Carothers, Wm. M. Cole, W. D. Eastland, H. Schultz and J. Viada. The patient having been placed on a table and brought under the influence of chloroform, an incision was commenced an inch and a half above the great trochanter, and carried directly downward in the axis of the limb, for the space of five inches, passing through the sinus formerly mentioned. The muscular tissue was found to have entirely disappeared, and to have been replaced by the fatty granular deposit known as the product of long-continued inaction of, and suppuration in, the muscles of voluntary motion, first described by Bèclard and Guersent. Two small vessels were secured by ligature, and the mass of diseased bone was partially isolated by careful dissection, the condition of the patient rendering the avoidance of hæmorrhage indispensable, on pain of seeing him die on the table; fortunately this proved to be but trifling. No little embarrassment was experienced in determining the relations of the diseased bone, in consequence of its great volume, due, as it proved, to the large quantity of spongy osseous deposit, the product of abortive attempts at reparation. The chain saw was carried round the shaft with a bent probe, and the section of the bone effected with a facility which foreboded future exfoliation. The separation of the upper part of the shaft was easily completed, the trochanteric epiphysis, enveloped in new spongy bone, was removed, the neck of the femur had entirely disappeared, and in the acetabulum lay the di-

minished head, presenting a hemispherical black mass from which all the animal matter had been removed by absorption; the acetabulum was shallowed by the same process, the capsular and round ligaments and the cartilage were altogether absent, and the bottom of the articular cavity presented the same black color and gritty feel as did the head of the femur. No attempt was made to remove this necrosed portion. The wound was closed by three twisted sutures and twenty-five drops of tinct. opii, in brandy, were given before replacing him in bed, the shock being somewhat alarming. The quantity of blood lost was small, not exceeding three ounces.

8 P. M. Has rallied considerably; to have twelve drops of laudanum.

May 3, 6 A. M. Has passed a quiet night, and is in every respect in a most satisfactory condition. He feels confident of recovery. To have half a pint of East India bitter ale daily. Continue the iron. The limb is steadied by a long cushion, and at his earnest request the long splint which he has worn for many months was applied over the water dressing. No other apparatus was used throughout the treatment.

From this time the improvement was rapid, and uninterrupted, save by two smart attacks of erythema extending over the whole limb, and occasional trifling disturbance from the passing of small calculi, of which more than twenty have been preserved.

A few days after the operation, careful measurement showed the femur of the injured limb to be exactly twelve inches in length, while the remaining portion of the same bone on the injured side measured six and one half inches, so that the bone removed represented five and one half inches of its length. The shortening of the limb, as compared with the other, was six inches, the cut end of the femur resting on the dorsum ilii, no attempt

having been made to direct it into the acetabulum, through fear of the consequences of bringing in contact two surfaces of diseased bone.

After maceration for a short time, the excised bones were found to consist of, 1st, the shaft, dry, brittle, and denuded of periosteum; it is three and one-half inches in length; at the cut end it is enveloped, in one-half of its circumference, in new bone of exceedingly light and spongy texture, at one point three-eights of an inch in thickness; the upper end is thinned by absorption to a point, which is marked by a transverse groove, made, probably, by the bullet, which has never been found, being probably encysted. The second portion of bone is the great trochanter encased in an irregular deposit of new bone; the trochanter minor has disappeared entirely, having apparently been traversed by the ball. The third portion is one half the head, dark in color, heavy and friable as compared with the other bones; hardly a trace of animal matter remains. Besides the remains of the original bone, there were numerous masses of extremely open, light, osseous tissue in which but little earthy matter had as yet been deposited, the surface, however, presenting at many points, a more compact texture, which exhibits the striæ found on healthy bones.

July 20th. The sinuses have all closed; the parts being firmly consolidated, can be freely handled without causing any uneasiness. The divided end of the femur rests on the dorsum ilii, and a false joint admits of free motion; he has recovered flesh and strength in a remarkable degree, notably from the waist up. The injured limb bears the weight of the body better than does the sound extremity, in which appears the only trace of the extreme emaciation consequent on his protracted sufferings.

To-day he was placed in an erect posture for the first time in sixteen months.

August 2. Has ridden out in a carriage. Is sound and well, but not yet expert in the use of his crutches. Left for his home in Mexico, August 3. In December last I received a letter from the father of my patient, informing me that the boy is well and hearty, and able to join in the rough sports of his companions.

From the days when Anthony White first resected the head and neck of the femur for disease resulting from injury, the first case on record, and which proved successful, and when in 1829, Oppenheim removed the head and neck for a gun-shot wound, being the first case in which the operation was performed for an injury of this nature, up to the present time, this operation has excited great interest among surgeons, as offering a means of avoiding the terrible operation of disarticulation at the hip.

The late Mr. Guthrie, in view of the mortality attending hip-joint amputation, or injury frem gun-shot, strongly recommended resection and there was a general disposition on the part of military surgeons to give this operation a fair trial.

The surgical annals of the Schleswig-Holstein war, of the Indian mutiny, and of the long experience of French military surgeons in Algeria, furnishe no instance of successful resection of the head of the femur for gun-shot wound, and it was not until the war in the Crimea that a case resulted successfully in the hands of surgeon O'Leary. Up to that time there had been performed twelve such operations, of which Dr. O'Leary's was the only successful one.

In circular No. 6, from the Surgeon General's office, there is an abstract of thirty-two cases reported up to

that time, occurring during the late war in this country, and of these, four were successful.

The records of the office of the Surgeon General of the late Confederate army would, doubtless, furnish successful cases, but as they are not accessible, it is to be hoped that the Confederate surgeons, who had occasion to perform the operation, will report their experience, for the information of the profession.

Resection for caries of the head of the bone was successfully performed by the present Sir William Fergusson, for hip-joint disease, in 1845, and since that time by several European and American surgeons, the last recorded case, I believe, being by Dr. McGregor, of Glasgow.

From this cursory historical sketch of the operation, it results that of forty-six cases, in which the operation has been performed for gun-shot injury, there have been six recoveries, being 1 in 7⅔, a somewhat higher ratio of success than that furnished by the statistics of amputation at the hip-joint for gun-shot wounds, as appears from the following table:

	Cases.	Deaths.	Recoveries.
Table in circular No. 6, : :	103	92	11
Case in which I operated, 1854,	1	1	
Dr. Eve's cases, Rich. Med. Jo.	1		1
	105	93	12

or 1 recovery in 8¾ cases.

The records of the last war in Germany will, no doubt, furnish valuable statistics on this point, but the above cursory, comparative view of the result of the two operations will suffice to show that experience, as well as theory, is in favor of resection, rather than amputation, at the hip-joint where there has been no serious injury to the great vessels and nerves.

There are some points of practice involved in the case reported above, and first, as to the period of operation.

M. Legouest asserts that, in all operations involving the hip-joint, secondary are more successful than primary operations, in support of which statement he has published a table which stands thus:

	Recovered.	Deaths.
30 primary amputations, : : :	0	30
11 intermediate amputations, :	3	8
3 remote amputations, : : :	1	2
44	4	40

If we take the table, given in circular No. 6, we find

	Recovered.	Deaths.
83 primary amputations, : :	6	77
22 secondary amputations, :	6	16
105	12	93

In making this comparison between the two classes of operations, there is one element of inaccuracy which can never be eliminated, and which consists in the fact that of the patients, subjected to primary operations, many would never arrive at the period for secondary amputation or resection. The general result of such a comparative view, however, goes far to prove the superiority of secondary over primary operations at the hip-joint, to which is to be added the much greater success of these operations when performed for diseases of the bone than when resorted to in consequence of injury; thus furnishing a marked exception to the now accepted aphorism that, in military practice, primary operations are to be preferred to secondary. As far as it goes, my case is an argument in favor of secondary resection.

The following tables of primary and secondary resection after gun-shot wounds show very clearly the greater success of secondary than of primary resection, the cases being assimilated to those in which the operation is performed for diseases of the bones.

Primary Resections of Head and Neck of Femur for Gun-shot Wounds.

No.	AUTHORITIES.	CASES.	DEATH.	RECOVERY.	DATE OF OPERATION.	NAME OF OPERATOR.	RESULT.	REMARKS.
1	Hamburg Zeitschrift, Vol. 1.....	1	1		May 5, 1829.	Oppenheim.	Death in 17 days.	G. S. fracture of head of femur and of rim of acetabulum.
2	Hist. Chirurg. du Siége d'Arvers par H. Larrey, Mem. de Medicine Militaire, tome 34. . . .	1	1		1832.	M. Seutin.	Death in 8 days.	G S.F. of neck of femur; death from gangrene.
3	Heyfelder, Traité des Résections.	1	1		1847.	Textor.	Death in 9 days.	G. S. F. of trochanters.
4	Lohmeyer, Ueber Schusswunden.	1	1		1854.	Baum.	Death in 22 hours	G. S. F. of neck of femur.
5	Macleod. Notes on Surgery of the Crimean War, ...	1	1		July 5, 1855.	G.H.B. Macleod Surg. to Gen.H. before Sebastopol	Death on 8th day	G. S. F. of great trochanter and neck of femur. Had symptoms of cholera.
6	Guthries' Comment on Surgery and Macleod's Notes.	1	1		1855	Surg. Blenkins, Gr. Grds	Death in 5th w'k	Shell wound of neck, trochanter and shaft of femur, Death from puru't. absorption.
7	Ibid. Ibid.	1	1		Aug. 6, 1855.	Staff Surg. Crerar.	Death in 15 days.	Shell wound fr. of femur. Cause of death not stated.
8	Ibid. Ibid.	1		1	Aug. 19, 1855	Sur. O'Leary, 68th lt. inf.	Recov'd in 3 mos	Shell wound fr. of trochanter.
9	Ibid. Ibid.	1	1		Sept. 9, 1855	Staff Surg. Geo. Hyde.	Death in 5 days.	Grape shot wound of neck of femur.
10 to 21	Circular No. 6, Surgeon General's Office, U. S. Army. P. 62, et seq	11	11			Medical officers U. S. A.	Deaths varying from hrs to w'ks	
		1		1	June 5, 1864.	Confederate Surgeon.	Recv'd in 10 mos	Shell wound fr. of head and neck.
		21	19	2	or 1 recovery in 10.5 cases.			

Secondary Resection of Head and Neck of Femur for Gun-shot Wounds.

No.	AUTHORITIES.	CASES.....	DEATHS...	RECOV'RY	DATE OF OPERATION.	NAME OF OPERATOR.	RESULT.	REMARKS.
1	Stromeyer, gun-shot fractures.	1	1		May 30, 1849	Schwartz.	Death in 7 days.	Death from pyæmia; operation 37 days after injury.
2	Esmarch. Deutsche Klinik....	1	1		1850	Ross.	Fatal.	Cause of death not stated; operation two years after injury.
3	Macleod's notes, Crimean war.	1	1		185[illegible]	Surgeon Combe, royal artillery.	Death in 15 days.	G. S. wound of neck of femur; died of exhaustion.
4	Circular No. 6, S. G. O..	1		1	Mar. 21,186[illegible]	D. P. Smith, Surgeon U. S. V.	Recov'd in 5 mos. with useful limb	G. S wound of trochanters; six inches of bone removed 7 months after injury.
5	Ibid.....	1		1	Jan. 9, 1864	Surg. J. B. Reed, C. S. Army.	Recov'd in 8 mos a most successful case, walks without a crutch.	G. S. fracture of upper extremity of femur.
6	Ibid.....	1		1	May 27,186[illegible]	[illegible]a, Surg. G. A. Mursick, U. S V.	Recovered in 11 months.	G. S. fracture of neck and trochanter; 22 days before operation head, neck and trochanter removed.
23	Ibid.	17	17			[illegible]y various Medical officers of U.S.Army		Death from various causes; shock, exhaustion, pyæmia.
24	Dr. A. E. Carothers, late Ass't Surgeon U. S. Vols.....	1	1		Dec. 1862.	[illegible]. A Surgeon W. R Dewitt, U. S. V.	Died in second or third week.	Dr. Carothers assisted at operation, which was performed at College Hospital, Georgetown. D. C.
25	Cupples, in Richmond & Louisville Medical Journal.	1		1	May 2, 1866.	Geo. Cupples, M.D.	Recov'd in 3 mos. with limb shortened six inches.	G. S. fracture below trochanters, thirteen months before operation; head, neck and 3½ inches of shaft removed.
		25	21	4	or 1 recovery in 6.25 cases.			

A point to which I wish to direct attention is the necrosed condition of the acetabulum with the great tumefaction within the pelvis. The necrosis existed to such an extent that it was deemed unadvisable to attempt the removal of the disease.

ART. II.—CARBOLIC ACID IN TREATMENT OF RUBEOLA. By T. J. WILLIAMSON, M. D., Cincinnati, O.

On the 28th of June I was called to see Miss A. B., of this city, age twelve years, and of strumous diathesis, nervous temperament, &c.

I found her suffering from all the general symptoms of a malignant form of measles. Had been sick four days; pulse one hundred and fifty, with delirium, but with no appearance on the surface of measles. Her tongue was fiery red and heavily loaded; her gums bleeding, and the mucous membrane of the mouth, together with the sublingual gland, covered with eruptions. She was suffering likewise with gastritis, the stomach ejecting both food and drink of every description. I prescribed: ℞. Syr. scillae c, ℥1; syr. ipecac, tr. lobelia inf. āā ℥j; carbol. ac. gtts, xvi. *M.* Teaspoonful every hour; and as a wash for her mouth, ordered: ℞. Carbol. ac. ℈ij; chlo. potas, ℈j; mellis. desp., ℥ss; aq. camph., ℥ij., *M.* Gargle, or mop mouth every three or four hours, keeping the bowels free enough with syr. manatus. In about twenty-four hours her tongue cleaned off, secretions pretty well established, and the mouth presenting an almost healthy appearance. The surface was then covered with a bold confluent rash, her delirium gone and perfect rationality restored. During the existence of delirium I ordered ten grain doses of bromide of potas. every three or four hours. On the ninth day she was dismissed convalescent.

A case so complicated I have rarely met, nor any remedy that seemed to have such magic effect, for I have used carbolic acid in other cases with similar results.

ART. III.—CASE OF POISONING BY INDIAN POKE ROOT. By A. G. CRAIG, M. D., Ghent, Ky.

On the morning of the 18th of April last, Mr. B——, aged twenty-nine, while at work in his garden ate heartily of Indian poke root, supposing it to be artichoke, a perennial plant, cultivated in our gardens as a culinary vegetable. He ate, probably, one-half of a root, six inches in length, when faintiness and sickness of stomach were produced. In a very short time he commenced vomiting and purging, severely and frequently. My partner, Dr. Ellis, was summoned, and saw him about half an hour after he had eaten the poke root. Upon my return from a professional visit in the country, one hour later, I visited the patient. He was greatly prostrated, and could speak only in a whisper. He had vomited no less than a pint of blood, and had passed a quantity of blood mixed with bilious matter from his bowels. The poison had exercised a powerful influence over the nervous system, producing faintness, somnolency, vertigo, headache, and dimness of vision. He complained of griping in the bowels, of burning pain in the epigastric region, and of severe cramps in his lower extremities. His pulse was slow and feeble; breathing shallow; pupils considerably dilated; skin blue and cool; eyes sunken deep in their sockets, and surrounded by a livid circle—in short, he presented the appearance of a patient sinking into the collapsed stage of Asiatic cholera. Our treatment consisted of measures to counteract prostration. He was ordered small doses of the tincture of opium and French brandy freely. A large sinapism was ap-

plied over his bowels, friction to the extremities, and artificial heat with bottles filled with hot water. He was allowed to have small lumps of ice to swallow *ad lib.*

April 18. Pulse sixty-five and feeble; tongue dry and brown; considerable thirst; appetite gone; bowels moved once during the night. He vomited also occasionally. He has reacted as well as could be expected. Treatment omitted.

I did not see the patient until about a week afterward, when he visited my office, still weak and pale, but in fine spirits.

This case will prove to be of interest to the profession from the fact that, Dr. Charles Osgood, in an able paper, published in the American Journal of the Medical Sciences (xvi, 296), asserts that Indian poke root is wholly destitute of cathartic properties.

ECLECTIC DEPARTMENT.

"Carpere et Colligere."

ART. I.—REPORT OF THE COMMITTEE ON PHARMACY. By THOMAS E. JENKINS, M.D., Louisville, Ky.

In submitting this report your Committee on Pharmacy has thought proper only to collect such published facts bearing upon Materia Medica, Chemistry, and Pharmacy as have been announced during the past year, and to lay them before the society with as few comments as possible, for the reason that, in order to be able to discuss, in an intelligible or useful manner, the many important points touched on in the multitude of subjects that have within the twelve months engaged the attention of observers in this fruitful field, would have required very much more time than it was possible for it to give the matter, and most of the subjects reported upon are of

such a nature that simple speculations on them would avail the society but little. Therefore the observations on the great army of investigators in chemistry and its collateral sciences are presented as they have been found in the various periodicals devoted to the advancement of exact knowledge.

In view of the immense contributions to medicine made by chemistry, and the magnitute of the subject at present, your committee would respectfully suggest that it be divided into several sections and each allotted to a separate committee. The following divisions might, with advantage, be made:

Committee on Physical and Pathological Chemistry.

Committee on Toxicology and Medical Jurisprudence.

Committee on Adulterations and Falsifications of Drugs, Medicines, and Food.

Committee on Materia Medica and the Progress of Pharmacy.

RECENT FACTS IN PHARMACY, CHEMISTRY, ETC.

Bleaching.—Hypochlorite of magnesia is strongly recommended for bleaching delicate tissues, and is decidedly preferable to hypochlorite of lime, as it is more readily decomposed, and the liberated magnesia has no action on the fabric.

Disinfectants.—Chlorinated lime is a most reliable disinfectant, equaled only by the permanganates. Next to these, the various sulphites are considered of value. Carbolic acid acts simply as an antiseptic. The metallic sulphates, chlorides, &c., are only deodorizers of matter undergoing putrefaction, and therefore least advantageous in destroying miasmatic emanations.

For the disinfection of church vaults and other infected places, such as sick chambers, &c., *chlorine, chlorinated,* or *carbolate* of lime; for disinfecting privies, drains, sinks, and sewers, *carbolic acid;* for the disinfection of fæces, *chloride of zinc or iron;* for drinking water, *permanganate of potassa;* for bedding, wearing apparel, &c., expose to a temperature of 250° to 300° Fahrenheit.

Moxa.—This cautery is prepared by mixing 40 parts charcoal, 3 parts nitrate of potassa, and 10 p. g. tragacanth with 48 p. water to form a mass, which is rolled out and divided into little sticks 10 c. m. in length. When dry, they will burn readily without scintillation, produce very little ashes, and do not break easily.

Poison Bottles.—Mr. Moith recommends that poison bottles be coated on the neck and shoulders with asphaltum varnish, prepared by dissolving a few ounces of finely powdered asphaltum in a pint of benzole. This, without destroying the symmetry of the shop, is all sufficient to attract the attention of the dispenser to the poisonous character of the contents.

Animal Fats are purified and rendered inodorous for a long time, according to Hirtzel, by mixing the recently melted fat (14½ lbs.) with table salt (5 drachms) and powdered alum (15 grains), and heating until a scum forms on the surface. The scum is separated, and, when the fat has cooled, it is thoroughly washed with water to remove the salts, and then heated gently until all the water is evaporated.

Black Caustic of Velpeau is prepared by triturating powdered licorice root with sufficient sulphuric acid to give it a pasty consistence.

Lunar Caustic.—The ends are best enveloped in a film of collodium, which is obtained by pouring collodium on a glass plate, and wrapping the ends of the cylinder with it as soon as it is dry enough to be touched; it is then fastened with a little collodium.

Vermin Ointment.—(Dr. Hager). Quiniæ sulph. 12 p., acidi muriat 2 p., adipis 200 p.

Chloride of Zinc Cauterizing Paste, used with success in the treatment of cancer, is prepared with the following ingredients: chlor. zinc 12 p., chlor. antimony 8 p., pulv. starch 4 p., glycerine q. s.

Preservation of Ointments.—Mr. W. L. Scott recommends the use of bisulphite of lime for the preservation of ointments, which he has found to keep perfectly when a small quantity of the salt was added in the form of a strong solution.

Benzoated Ointments.—Mr. T. Doliber, in continuation of his experiments on this form of ointments, finds the preservative properties of benzoin to be almost universal to ointments and cerates.

Camphorated Soap is prepared by Calmberg by intimately mixing a concentrated solution of camphor with powdered soap, and kneading to the proper shape on tile. It is formed into 30 grain tablets, and wrapped in tin foil.

Santonine Lozenges.—According to Guyot Dannecy, santonine lozenges should be prepared with santonine in crystals, as those prepared with powdered santonine

are very bitter and disagreeable, while those prepared with crystals are tasteless.

Elixir Calisayæ and Elixir Calisayæ Ferratum.—Formulæ for these preparations are offered in A. J. Ph. XL., 104, by C. Lewis Diehl, according to which the cinchotannic acid is removed by hydrated sesquioxide of iron, furnishing elixirs which can be mixed with ferric salts without suffering decomposition.

Ferrated Elixir of Gentian.—Dissolve 256 grains pyrophosph. iron in 2 fluid ounces of boiling water, add 2 fluid ounces fluid extract gentian, 6 fluid ounces curacoa cordial, and sufficient sherry wine to make the measure up to a pint.

Elixir of Iodide of Iron and Quinine is prepared with the following: Iodide of iron and quinine (Merk's) 30 grains, sugar 12 ounces, water 3 fluid ounces, elixir curacoa 5 fluid ounces.

Iodo-ferrophosphorated Elixir of Horse-radish.—Macerate 10 kils., each of fresh scurvy grass and water-cress, 0.5 kils. orange peel, 0.2 kils. angelica root, 0.1 kils. cinnam. buds, 0.1 cardamom, and 0.1 kils. mace in 40 litres white wine for twenty-four hours, and distil. 10 litres—10 kils. fresh horse-radish is pounded intimately with 20 kils. sugar, sufficient water added to dissolve, and, after adding the above distillate, brought to 32 litres—420 gram. iodine are now dissolved in 10 litres simple syrup by gentle heat, and occasionally agitated, until the syrup becomes colorless, and added to above syrup, to which is added a solution of 840 gram. pyroph. iron in 17 litres of water, and 6 litres 96 per cent. alcohol. The dose is a tablespoonful, containing 2 grains iodine, and 4 grains pyroph. iron. It should be kept excluded from the light.

Fluid Extract of Cinchona.—Exhaust 8 oz. of bark with dil. alcohol, reserving the first 12 ounces—mix the remainder of the percolate with 6 fluid ounces of simple syrup, and 4 fluid ounces of glycerine, evaporate to 12 fluid ounces, add reserved portion, and cautiously evaporate to 16 fluid ounces.

Elixir Chloroform is prepared according to the Medical Pharmaceutical Association of Washington, D. C., as follows: Chloroform, tinct. opii., tinct. camphoræ, spts. ammoniæ arom., of each one fluid ounce and a half, ol. cinnamoni 20 min., brandy 2 fluid ounces. Dose—half a fluid drachm, or less.

Elixir Ferri Pyrophosphatis is prepared, according to same authority, by dissolving 320 grains pyrophosphate of iron in 8 fluid ounces of distilled water, and adding 4 fluid ounces each of syrup of orange peel and brandy.

Ext. Assafœtida Fluid (Aeth).—Mr. Fairthorn proposes it preparation for the purpose of making suppositories, as follows: Cut one troy ounce of assafœtida into pieces about the size of a pea, agitate this occasionally for two or three days in a bottle containing 3 ounces and 6 drachms of strong ether and 3 drachms of water. Decant the ethereal solution and strain.

Glycerine Lotion for chapped hands is prepared by simmering one drachm of quince seed in half pint of boiling water for ten minutes, straining the mucilage, and mixing 1 part with 1 part of inodorous glycerine, and 6 parts of orange flower or rose water. A little borax may be added if desirable.

Liniment of Iodine with Carbolic Acid is suggested to be made by Dr. Percy Boulton, by mixing 3 grm. comp. tinct. iodine, 6 drops pure liquid carbolic acid, 30 grm. glycerine, and 150 grm. dist. water. It is one of the most powerful antiseptics we possess, and intrinsically a more efficacious agent than iodine alone.

Lotio Alba Boracis—(Nipple Wash of the Washington Pharamaceutists).—Borax 1 drachm, rose water a fluid ounce—dissolve, filter, and add oil sweet almonds a fluid ounce—mix well.

Opodeldoc Chloroformatum.—R., saponis butyrini p. 2, solve digerendo in alcoholis fort. p. 20; liquori filtrato adde chloroformi p. 3.

Artificial Milk.—Mr. Gilbourt in a paper before the Academy of Medicine, called attention to the artificial milk invented by Baron V. Liebig, and suggests that we have a much more efficient and appropriate substitute for human milk in cow's milk. By adding to the latter a little sugar, and one-fifth of its weight of water, we possess a better substitute for human milk than any artificial compound.

M. Depaul has practically tried the effects of Liebig's artificial milk on four new born children, all of whom died in the course of a few days.

Liquid Soap is recommended as a vehicle for many medicinal substances, to be applied locally, and it possesses as such many advantages. It is prepared by boiling together 100 p. glycerine, 32 p. oleine, and 17 p. concen-

trated solution of potassa, to which is subsequently added 3.5 p. carb. potass., dissolved in a small quantity of water. It may be perfumed with nitro-benzole. Thus prepared, it furnishes a soap of the consistence of honey, which on standing a few days will settle perfectly clear, forming a slight deposit, from which it is readily separated by decantation.

Creme de Bismuth.—Subnitrate of bismuth 2½ drachms and carmine 2 grains are rubbed with 2 ounces of syrup strawberries, and 2 ounces of mucilage of gum. It is flavored with 30 drop ess. of vanilla, and taken in tablespoonful doses.

Anti-spasmodic and Anti-neuralgic Pills of Raja.—R., Ext. valerian, assafœtida, galbanum, castor, of each 1 gram., make 18 pills. Dose 1 pill 3 times daily.

Pills of Carbolate of Quinine are prepared by dissolving 60 grains of carbolic acid and 100 grs. quinine in 300 grs. of highly rectified spirit, filtering the solution, evaporating to the consistency of turpentine, and forming into 100 pills by the aid of extractum acori and powdered cassia. The dose is 1 pill 3 to 6 times daily.

Copaine Mege de Jozeau.—These are oval sugar-coated pills, generally colored, constituting a new specialty in Parisian pharmacy. They are prepared from balsam copaiva, treated with concl. NO5 as long as effervescence takes place, and then thoroughly washed with water to remove acid. One part of balsam thus treated is mixed with one-sixteenth calc. magnesia, one-tenth pulv. cubebs, and one-tenth bicarbonate soda, and by the aid of mucilage is formed into oval pills, which are subsequently coated with sugar.

Pills of Nitrate of Silver are prepared by mixing 20 centigram. nit. silver with 2 gram. precipitated silica, and forming into a mass with tragacanth, which is to be divided into 20 pills. Combined in this way, the silver salt is not liable to decomposition. Nitrate of potassa, substituted for silica, may be preferred.

Adhesive Plaster.—To form a plaster similar to that proposed by Dr. Fort—5 p. gum, 5 p. water, 2 p. glycerine. The plaster prepared from this mixture is odorless, very flexible, never becomes brittle, very adhesive, and never becomes hard on the skin. Besides these advantages, it is cheap.

Charta Sinapinata of Rigollot is prepared by covering paper (sized with a solution of caoutchouc in bisul-

phide of carbon, or a solution of resin), with finely powdered and well dried black mustard, deprived of its oil, and passing the paper thus covered between two cylinders. Rigollot's paper has a stratum of mustard 0.7 mm. thick, which adheres well, and does not peel off on bending.

Granulated Effervescing Carbonate of Iron is prepared by Muller, by making a mass with 42 p. finely powdered protosulphate of iron, 190 p. bicarb. soda, and 128 p. tartaric acid, by means of absolute alcohol, passing the resulting mass through a sieve, and drying at the ordinary temperature.

Solution of Morphia in Chloroform.—A uniform and permanent combination of morphia and chloroform is obtained by dissolving 3 grs. of pure morphia in one drachm of strong alcohol, by the aid of 3 drops of the strongest acetic acid and gentle heat, and adding, when cold, half an ounce of chloroform. Three drops of this solution weigh one grain, and 30 drops (10 grains) correspond to one-tenth of a grain of morphia. It is recommended as a remedy in toothache, and, when administered internally, is found to obviate the disagreeable concomitant effects of morphia, especially vomiting and nausea.

Solution of Caffeina in Chloroform is recommended for the premonitory symptoms of hemicrania, and is prepared as follows: Dissolve 10 grs. of caffeina in 2 drachms of strong alcohol and ½ drachm of water by the aid of gentle heat, and add, when cooled, 2 drachms of chloroform. It must be protected from light; 30 grains, or 75 drops of this solution, contain 1 grain of the alkaloid; the dose is 15 to 20 drops, at short intervals.

Pennes Antiseptic Liquid is produced by adding 2 parts of hydrobromic acid to 8 parts of pure carbolic acid, contained in a porcelain capsule placed on a sand or steam bath. When the combination is effected, fill in glass stoppered vials.

Solution of Citrate of Magnesia.—R., Citric acid 450 grains, 100 grains light calcined magnesia, 1 fluid ounce syrup of citric acid, 40 grains bicarbonate of potassa, and q. s. water to make 12 fluid ounces. The amount of syrup directed in the officinal formula is found to be too large. The addition of all the magnesia at once is objectionable; it should be added in small quantities, and preferably suspended in a portion of the water.

Vinum Pepsicum is prepared by mixing 1½ drachms of powdered pepsine, 6 fluid ounces of distilled water, 1 troy oz. of sugar, 15 fluid drachms of sherry wine, and 3 fluid drachms of alcohol.

Wine of Tar is prepared by triturating 6 troy oz, of tar with 2 troy oz. of carbonate of magnesia, digesting the mixture with 4 pints of sherry wine and filtering, bringing the measure of the filtrate to 4 pints by pouring an additional quantity of wine on the filter.

Vinum Diureticum of the Hotel-Dieu, according to Trousseau, is prepared by macerating, for two weeks, 6 p. fol. digitalis, 3 p. rad. scillæ, and 30 p. bacc. juniperi, in 400 p. vin. alb., and 50 p. spirits vini rectif., expressing, adding 20 p. dry acetate of potassa, and filtering.

Vin. Chinæ Ferratum.—Foresterii). This popular tonic wine, which has gained considerable reputation on the European continent, is prepared as follows: Digest, at a gentle heat, 5 p. pyroph. iron, 5 p. citric acid, 10½ p. pyroph. soda, and 50 p. glycerine, with 200 p. malaga wine, until the salts are dissolved, and filter. Mix this with a filtered tincture prepared by macerating 50 p. red bark and 15 p. orange peel (deprived of pulp), in 750 p. malaga wine. Filter the mixture if necessary.

Lobelia inflata.—It is stated that the nauseating and depressing effects of lobelia may be counteracted by administering a few drops of dilute hydrocyanic acid. It is highly recommended in the treatment of bronchitis and asthma.

Thea Chinensis.—It appears that the teas are collected from the same plant, but their quality is subject to climate influences, soil, culture, and preparation. The tender tops of the shrub yield the finest teas, while the lower leaves yield the common kinds. The first crop yields also finer teas than subsequent crops, which are successively of poorer quality to the fifth or sixth crop. The green teas are not colored by drying on copper plates, as is generally supposed, although some varieties are colored artificially, but with perfectly inert substances. The black teas have to undergo a process of fermentation before they are dried, and lose thereby a portion of their narcotic action.

Theine.—Dr. Leven sums up the physiological action of theine, as commpared with caffeine, as follows:

1st. Theine and caffeine, considered as one and the same alkaloid by chemists, seem to produce different tonic effects upon animals submitted to their action.

2d. Theine is a less powerful poison than caffeine, and it is only when given in double doses that the former produces the tonic effect of the latter.

3d. Theine also produces convulsive movements in the limbs, which Dr. L. has not observed from the action of caffeine.

4th. In other respects their physiological effects are identical.

Caffeine appears to stimulate the heart directly. When first absorbed, the circulation and respiration are accelerated; the pulse is more frequent and firmer, and the secretions more active. It may be given to man in doses of many grammes without injury.

By experiments on the physiological action of *thebaina*, *papaverina*, and *porphyroxin*, Bast finds the action of thebaina to be closely allied to strychnia (although in a much milder form); that of papaverina to morphia, while that of porphyroxin is intermediate between the two.—[*Transactions Ky. State Med. Soc.*

ART. II.—PURULENT INFECTION CURED BY SULPHATE OF QUININE IN LARGE DOSES. By S. H. HORNOR, M.D., Louisville. Ky. From the "Archives Génerales de Médicine."

An interesting discussion was elicited upon this subject before the Academie de Mèdicine, of Paris, at its session of the 18th of May last, by the report of a case, made by M. Alphonse Guerin. The patient was admitted to hospital on account of a crushed thumb; fifteen days after he was seized with violent chills, repeated at intervals, with chattering of the teeth, followed by pain in the right hypochondrium and limbs; considerable prostration, dryness of the wound, profuse sweats, in fine, by all the symptoms usually attending purulent infection. As a sequela a metastatic abcess developed itself in the leg.

The patient recovered under treatment by sulphate of quinine in doses of 1, 3, and 4 scruples a day.

Five months after leaving the hospital the patient committed suicide. At the autopsy M. Guerin discovered two cicatrices of the liver, believed, by him, to be traces of superficial abcesses, developed in that organ as the re-

sult of purulent infection. He added, that he had several times given with success, the sulphate of quinine in large doses in this disease. According to him, the less pronounced the physiological action of this agent in this affection, the greater its therapeutical action. So well persuaded of this fact is he, that he is disposed to despair of the patient in whom the absorption of the agent does not produce all the phenomena of *quininism*.

M. Gosselin did not doubt the existence and cure of purulent infection in M. Guerin's case. Though rare, the cure of this affection is not without examples; he himself recalled two cases to mind. But, he asked, is this happy result attributable to the sulphate of quinine? Everybody has seen cures without the use of this remedy. He asked if M. Guerin had other facts to support his opinion. M. Guerin replied that he could adduce several cures which he ascribed to sulphate of quinine.

M. Verneuil admitted the possibility of curing purulent infection. Metastatic abcesses can be cured when they open through the integument; but if they have their seat in the kidney, or in the brain, it is evident they cannot be cured. And this led him to ask if these really were metastatic abcesses in the case of M. Guerin, or whether the cicatrices referred to were not simply the result of an infarctus? We frequently meet with the latter in our autopsies made after various diseases.

M. Broca thought the curability of purulent infection could not be questioned, and could count four cases of cure in his own practice. But, on the subject of treatment, he shared the opinion of M. Gosselin. He had given the sulphate of quinine, and in large doses, and had seen his patients die; however, one, that he had seen get well, was treated with this remedy; but, until more positive data could be furnished, he should hold to medication combined with a supporting regimen. In his opinion purulent infection was simply a struggle between the organism and a septic agent, our cardinal object being, to try to render the organism sufficiently strong to withstand the struggle.

M. Briquet believed in the efficiency of the sulphate of quinine in purulent infection. By antagonizing the intermittent elements, this remedy allowed the local lesion —the suppuration—to decrease, and finally to disappear; besides, it sustained the system against the action of the morbific principle.

M. Herard was unwilling to admit the proposition advanced by M. Guerin, viz: that the sulphate of quinine was the more efficacious, the less marked its physiological action. He inclined rather to the contrary, and the absence of physiological effects would induce him to doubt the realty of the medicine being absorbed.

In a paper, upon certain physical and physiological properties of muscles, read before the Academie des Sciences, of Paris, at its session on the 19th of April last, M. J. Chmoulewitch concludes as follows:

1st. When heat acts upon a muscle in repose it produces two effects, one purely physical, the other physiological. The physical effect is observed only between the temperatures of 2° C. and 28° C. Between these limits the muscle is affected in a manner the opposite of that produced in all other bodies in nature; it is shortened by the heating and elongated by the cooling.

2d. Above 28° the purely physical influence, just described, is complicated by a new action of a physiological nature. If the temperature of the muscle be raised in a regular manner up to 40° or 41° it is seen to shorten with a rapidity that increases between 35° and 41°; it is in a state designated "rigidity by heat."

3d. If we wish to produce this rigidity by heat in two muscles, where one has been separated from the body two or three hours before the other, it will be necessary to employ a higher temperature in the former.

4th. The volume of a muscle diminishes during rigor mortis.

5th. The specific gravity of a muscle increases under the same circumstances.

ART. III.—NON-LIGATION OF THE UMBILICAL CORD.

Dr. M. B. Kellar has written an interesting article in the Cincinnati Lancet and Observer recounting the results of fifteen cases in which he left the funis untied. This practice, it will be remembered, was advocated some time ago by Dr. King, of Washington, who claims for it many and important advantages over the method of ligation. In order to test the comparative merits of the two systems thoroughly, Dr. Kellar took thirty cases in the lying-in ward of the Cincinnati hospital, in fifteen of which he applied the customary ligatures to the umbilical cord,

while in the remaining fifteen this procedure was omitted. The progress of every case was closely watched, and every symptom carefully noted. Of the infants, whose cords were tied, "four had severe diarrhœa, necessitating medical interference, but no jaundice. In eleven cases the liver was much enlarged, extending down to the ilium. Seven cases had profound jaundice with clay-colored stools. In four cases the skin presented a slight icteroid appearance, while in the remaining four the skin was clear (these, however, were the ones that had diarrhœa), and as for colic, this seemed to be a complaint shared in common by all, and seemingly these little ones were more troublesome, requiring more attention, appearing more fretful, in a word, they were not as good babies as those in which the umbilical cord was not tied."

Of the untied umbilical cords, the seventh was divided while the funis was still pulsating strongly, and the result was a loss of about three ounces of blood. The case, however, progressed favorably, and, in common with all the other cases, "the cord dropped off about the fifth day; no evidence of jaundice; not often annoyed with colic; bowels were very regular; appetites were good, and sleep was sound."

The mode adopted for division of cord was by means of "a dull pair of blunt-pointed pocket scissors, which "hack through the cord, not at one cut, but by a sort of nibbling process." No dressing of any kind was applied.—[*Exchange.*

ART. IV.—HOW FAR UP INTO THE INTESTINAL CANAL CAN LIQUIDS BE INJECTED PER ANUM? By VON TRAUTVETTER. (Deutsches Archiv. fuer klinische Medicin, vol. iv. 1869).

To solve that question the author has made a number of experiments on the living and on the dead human body, and on animals. He injected, by means of a self-injecting apparatus, constructed by Leiter, in Vienna, a saturated solution of the ferro-cyanide of potassium; and, having laid open the adbominal cavity and that of the big intestine, irrigated the mucous membrane with a solution of perchloride of iron, producing a dark blue tint on all points which the yellow prussiate of potash had reached. The latter salt has no action on the intestinal mucous membrane, and can be used in the living organism.

For the purpose of injecting high up, he used an elastic canula, 50 centimeters (1½ foot) long, in which he introduced a strong wire having the curvature of the sacrum. The point of an anal tube, thus curved, with a little skill, easily acquired by practice, is made to glide over the inner surface of the sacrum and the promontory, and to enter into the sigmoid flexure. A clasp fixed to the outer extremity of the wire by a screw prevents it entering too far, or passing out at the inner extremity of the canula to wound the intestine. When the tube is entirely introduced into the bowel, its point can be felt through the abdominal walls, in the region of the lower portion of the descending colon. The success of the introduction depends on three conditions: *a*, the lower bowels must not contain any fæces, and be free from atresias and adhesions; *b*, the elastic canula must be properly curved; *c*, the operator must have the necessary skill, patience, and caution.

The results of the experiments of the author on the dead human body were as follows:

1. The remotest place to which liquids can be injected per anum, is the boundary between the small and large intestines.

2. Liquids enter the colon ascendens, colon transversens, and colon descendens, only when the injection is made by means of the long elastic tube.

3. That whenever an injection was thus made, and the liquid did not penetrate high up in the colon, there was always present some obstruction—fæces, adhesions, atresias.

4. That in using the common injecting pipe, and the intestinal canal being perfectly free, the liquid could, at most, reach only the lower portion of the descending colon.

In order to ascertain if the result was the same in the living, he injected into the anus of a tuberculous individual, being in the last stage of agony, a solution of the ferro-cyanide of potassium. The patient died one hour after, and the post-mortem examination was made twenty-four hours later, when, on the application of the perchloride of iron, the mucous membrane of the whole large intestine was colored intensely blue. There was no reaction on the mucous membrane of the small intestines.

In making the injection on the living, the canula, well

oiled, is passed through the two sphincters, and cautiously advanced, when, at a distance of about 12 centimeters (5 inches), a resistance is encountered. This is the third sphincter. It must not be forced, being at first energetically contracted in consequence of the mechanical irritation, but relaxing after a little while, when it is easily passed. This done, the half, or even the whole, tube is introduced without much difficulty. The rule is to proceed gently, and never to force.

Many doubt the existence of a third sphincter, as it is difficult to demonstrate it anatomically; but the author has always convinced himself of its existence when introducing the long tube. He thinks that it is the principal obstacle for the progress of liquids into the intestinal canal. The ordinary anal tubes are by far too short to pass it, and for that reason liquids injected by them reach only the lower portion of the rectum up to the third sphincter.

The experiments on animals (dogs) confirmed the above results.

Common injecting syringes, provided with a long, elastic tube, will answer the purpose.

These results induced the author to treat eleven cases of dysentery with injections, three with a solution of tannin (two grains to the ounce), five with tannin and tinct. opii (ten to twenty drops to an injection), and three with a solution of the nitrate of silver ($\frac{1}{2}$ to $\frac{1}{4}$ gr. to the ounce of distilled wafer). The patients treated with tannin, and tannin and opium, had fæcal discharges from the second and third day of treatment. The nitrate of silver seems to have still better effect, fæcal discharges appearing, and the tenesmus subsiding after the first or second injection. There were not more than 300 to 400 c. c. of liquid injected each time, and only one or two injections made in the twenty-four hours.—[*Exchange.*

ART. V.—THE MEDICAL ACTION OF BELLADONNA.

The following conclusions, in reference to the action of belladonna, arrived at by M. Meuriot, cannot but be of interest to our readers.

1. Atropine is the active principle of belladonna, and assumes all the properties of this solanum.

2. The intensity of its action varies with the species of animals. Herbivora are less sensible to its action than

the Carnivora. In man its poisonous action is the most violent; but no animal is exempt.

3. Its action also varies with the dose employed; for small doses accelerate the heart's pulsation and augment the vascular tension; poisonous doses diminish the tension and modify the cardiac pulsations.

4. Belladonna is a vasculo-cardiac poison, in the classification of M. Sée. Its action produces especially the innervation of the heart and of the vessels.

5. The varied phenomena produced by atropine depend mostly upon its primordial and elective action, or are due to the elimination of the poison.

6. Atropine acts upon the heart through the pneumogastric nerve, whose peripheral extremities are paralyzed. It augments the frequency of the cardiac pulsations.

7. In a small dose it augments the tonicity of the vascular muscles; in a poisonous dose it diminishes, and even destroys this; whence the application of belladonna to epilepsy, in which the access seems to be due to modifications of cerebral circulation.

8. The variations of the arterial tension are subordinate to the state of excitation or paralysis of the muscular coat of the vessels.

9. In small doses atropine accelerates the respiration; in poisonous doses it diminishes its frequency.

The acceleration of these movements depend upon the excitation of the respiratory centres; the consecutive retardation, upon a paralysis of the extremities of the vagi nerves; whence its application in the treatment of asthma.

10. Atropine, in a therapeutical dose, increases the activity of the excito-motory functions of the spinal cord.

In a poisonous dose it exaggerates the reflex power till it may produce convulsions.

11. Atropine *always* produces agitation, insomnia, delirium, and in a poisonous dose, coma; it is not at all a narcotic.

12. Atropine is eliminated by the kidneys, by the mucous surfaces, and sometimes by the skin of man. Its elimination is always rapid; so that the action is of short duration.

13. The effects due to elimination are numerous, viz: redness of the mucous surfaces and of the skin, frequent desire of micturition; colic; anal and vesical tenesmus; profuse sweat, diarrhœa, etc.

14. The redness and dryness of the mucous membrane explains aphonia, dysphagia, dysuria, etc.

15. Not only are all the secretions of the mucous membrane diminished, but there may be also, on account of the activity of the circulation, a rapid reabsorption of all the liquids which have exuded from mucous surfaces or from wounds; whence its advantages in exaggerated secretions, and its effects upon coughs, etc.

16. Atropine, applied locally to the tissues, produces an activity of the capillary circulation, and, in a considerable dose, true hyperæmia and sanguineous stasis.

Angina and erythema produced by belladonna are analogous to the inflammatory process.

17. The modifications of the urinary secretions are dependent upon the variations of the arterial tensions.

18. Belladonna is not a paralyzing agent to the smooth muscular fibres; it produces no phenomena of paralysis except in a very powerful dose, and in those cases it follows exaggerated contractions; thus it is of benefit in incontinence of urine and of the fæces, in paralysis of the bladder, in constipation, irreducible hernias, etc.

15. Atropine has no elective action upon the sensitive nerves. Its local application is always followed by acute and persistent pain. Atropine acts only upon nerves in a state of hyperæsthesia and often determines analgesia, but it should be applied directly upon the seat of pain (les nerfs affectés.)

20. Small doses of atropine augment, toxical doses diminish, the temperature.

21. Atropine, especially, possesses the property of causing dilatation of the pupil, and this is its most constant and persistent effect.

It paralyzes the terminal branches of the third pair of nerves; this is the only fact well shown by experimental physiology, in the study of the hyoscyamus also. (Gubler, Mydriasis caused by Belladonna.)

To this paralysis of the ciliary branches of the nervous motor ocularis communis is attached the paralysis of the muscle of accommodation.

22. Certain experiments and several considerations that have been made public by the author, tend to show some exciting action upon the sympathetic nerve or upon the *dilatateur*. However, a more vigorous demonstration is still essential.—*Druggists' Circular.*

ART. VI.—NEW VIEWS ON THE CONSTITUENTS OF THE URINE.

What is the mode and what the place of origin of the chief urinary constituents—urea, uric acid, and kreatinine? Up to within a very recent period almost all physiologists would have replied that they proceeded from the disintegration of the muscles, or of the albuminous compounds absorbed into the blood from the food, and that in the case of the muscles there was reason for believing that kreatin was one of the first stages in the retrograde process, since this was to be abundantly obtained from muscle, and probably underwent further oxydation into kreatinine and urea in the blood, in which the constant presence of urea had been incontestably proved by M. Picard. Munk, in 1862, gave additional support to this theory by stating that if kreatin be administered with the food, both in the dog and in man, an increase in the elimination of urea and kreatinine occurred. Broadly speaking, therefore, it was generally held that the kidneys are a filter which separates from the blood constituents already present in it. A different view has, however, been lately put forward by Oppler, Schottin, and Zalesky, to the effect that the chief urinary constituents, and especially urea, do not exist preformed in the blood, but are formed at and by the kidneys themselves. They rest their opinion upon the following grounds: First, that extripation of the kidneys, instead of occasioning, as might have been expected, a large accumulation of urea in the blood and tissues, is followed by only a trifling increase in the amount of urea, although the quantity of kreatine and other secondary compounds from which the urea probably proceeds, is largely augmented. Secondly, that if, instead of extirpation of the kidney, the operation of ligaturing the ureter be resorted to, it can be clearly shown that a great increase of urea in the blood and tissues occurs, which was to be anticipated, since the kidneys themselves are left uninjured by the operation, and the urea formed in them is, by its ready diffusibility, rapidly reabsorbed. Thirdly, Zalesky states that no uric acid can be discovered in the blood of the bird, though this is the chief constituent of their urinary secretion. And again, if kreatin be digested with the substance of the kidney reduced to a pulp, it undergoes

convertion into urea. Lastly, in regard to the circumstance that if kreatin be administered with the food more urea and kreatinine are eliminated, it is held that it is just as likely that the transformation occurs at the kidneys. There appears to be nothing improbable in this view, since we have reason for believing that the essential elements of most secretions are formed in the organs by which they are poured forth—as ptyalin by the salivary glands, the resinoid acids of the bile by the liver, and so on. The fact that the kidneys are excretory organs seems to offer no reason against their effecting the formation of the principal products of their excretion from the constituents of the blood adapted for that purpose. Within the last few weeks, however, the facts of the case have been called in question by Voit and Meissner, the authority of both of whom is deservedly high. Voit found that urea did accumulate in the blood and tissues, both after extirpation of the kidneys and after ligature of the ureters, though the proportion was larger in the latter case, simply because the animals lived longer. The total quantity obtained in one case of extirpation was just about the same as the animal would have excreted if its kidneys had been left intact. He found, moreover, no increase in the kreatin and other secondary compounds after either operation. He supports the old view, that urea is preformed in the blood, though its production may also take place in the tissues. Meissner, again, operating on large quantities of the blood of the bird (goose), obtained a quantity of uric acid sufficient, in his opinion, to account for the whole amount eliminated per diem, supposing the kidneys merely to act as a filter. Moreover, he found no increase of urea after the use of kreatin. But his analysis of different tissues in birds led him to the remarkable conclusion that the chief constituent of their urine, uric acid, was chiefly formed at the liver, since that organ contained it in far larger quantities than any other in the body. Pursuing his investigations upon the same point in mammals, he here also obtained evidence that urea is produced in the liver, and he attributes its development to the disintegration of the hæmaglobin of the effete red corpuscles of the blood into urea, glycogen, and biliary coloring matter. In corroboration of his views, he refers to pathological evidence derived from the statements of Frerichs, Stadeler, and Harley, to the effect that the quantity of urea is greatly diminished in

the urine of those affected with chronic, and altogether absent in those with acute, atrophy of the liver. Amidst this conflicting evidence, it is, we admit, difficult at present to draw any positive conclusion.—[*Lancet.*

ANALYTICAL DEPARTMENT.

"Qui e nuce nucleum esse vult, frangit nucem."—PLAUTUS.

ART. I,—ANALYSIS OF VARIOUS ARTICLES. Published in the Medical Times and Gazette, and the London Lancet. (Original copies.) By Prof. JAMES M. HOLLOWAY, M.D., Associate Editor.

Dr. John Kent Spender, Bath, in concluding his clinical notes on the treatment of syphilis, thus sums up the therapeutic propositions therein advanced.

1. For the secondary form of syphilis give, in the most eligible form, iodide of potassium in moderate doses, with blue pill or some analogous preparation.

2. The double compound of iodide of potassium and bi-chloride of mercury may be necessary for treating syphilitic inflammation of deeper tissues.

3. The bi-chloride of mercury is valuable for removing the intermediary squamous syphilides. The green iodide of mercury is recommended by Mr. Squire. In doubtful cases, bi-chloride of mercury may be added to arsenic.

4. The earlier tertiary phenomena of syphilis are relieved by the double compound of iodine and mercury just named; the latter ones by large doses of iodide of potassium. Sometimes even cures may be effected. Tonics are generally useful subordinate (?) agents.

5. Infantile syphilis always requires mercury.

And, I may add, that in otherwise intractable cases, the mercurial bath and the hypodermic method of introducing mercury into the system should be rendered available.

The following are the various modes of treatment adopted by the Surgeons at the hospitals in London for the cure of in-growing toe-nails.

King's College Hospital.—Regulate the shape of the boot so as to prevent a recurrence of the disease. Scrape down the affected side of the nail until it is as thin as pa-

per and pare the luxuriant skin "to the raw." Then make pressure with adhesive strips upon a pledget of cotton soaked in glycerine, so as to enable the nail to elevate.

When the nail is not diseased and the disability results from the hypertrophied skin, prodnce anesthæsia by means of the ether spray, and pare the skin closely so as to leave the edge of the nail perfectly free; after which apply pressure with the adhesive plaster or the india-rubber band. If the nail is broad and irregular, remove a triangular section of it from the centre.

If there is much ulceration and the nail is diseased the old plan of removing the outer third of the nail must be employed, taking care to remove every vestige of the root. This is Mr. Wood's practice.

St. Mary's Hospital.—An operation for removal of the in-growing nail not deemed necessary. A solution of *liquor potassæ* (℥ii to ℥i of water) is applied on cotton to the diseased nail and the diseased skin. The parts are kept continually moist with this lotion, and as the nail is softened by the alkali, it is scraped off. Finally the nail becomes so thin that it can be removed without pain; or if it is preferred, the lotion can be continued until it is entirely removed by scraping. It is important to continue the treatment until every vestige of the disease disappears. This is the practice of Mr. Norton.

St. Thomas' Hospital.—Mr. Croft does not, as a general rule, meet with these cases until the disease is advanced. He prefers Dupuytren's radical cure plan, because it is speediest and most certain.

He cuts through the centre of the nail with a strong scalpel and after lifting that half corresponding to the diseased edge with a pair of forceps as a lever, he is careful to pluck out the root of the nail.

In milder cases he pares the diseased corner and applies caustic and a compress.

University College Hospital.—Mr. Heath objects to paring the centre of the nail and cauterizing the exuberant granulations because such a procedure is ineffectual. He prefers to remove a narrow slip of the nail with forceps and scissors, taking care to bring away the root, a result not always easy to obtain because of the sodden condition of the nail. Careful dressing is always necessary after removal. In intractable cases in which both edges are inverted it is frequently necessary to destroy the matrix of the nail by the actual cautery. This com-

pels the patient to lay up for a few days, but insures a permanent cure.

Dr. Chas. R. Drysdale, Metropolitan Free Hospital, reports a case of persistent vomiting and constant eructions, treated successfully with sulphurous acid after other approved remedies had been tried. The lady, aged 36, had been suffering for one month, the matter ejected from the stomach being a sour, clear, frothy fluid. She took a half drachm of the acid in an ounce of water three times a day; she ceased to vomit after the third dose.

Dr. Andrew Wood, in his speech during the debate on the amendment of the medical acts in the General Medical Council, July 2, 1869, used the following language: "I wish to state that I think there is far too great an impression on the public mind that medical legislation concerns more the profession than the general public. That I deny. The object of medical legislation is not directly to benefit the medical profession, though indirectly it does so, but to benefit the public; because, if you read the preamble of the medical act, you find that the object which a paternal government had in sanctioning that act, was to enable the public to distinguish between qualified and unqualified practitioners."

Further on he says: "I deny that the medical act was made to protect medical practitioners from quacks; and I say, if it had been so intended, most unquestionably it would have failed in its operation. Any man may attempt as much as he likes to put down quacks in this country; but no amount of registration or any thing else will be effectual so long as there are men who are willing to be quacked."

M. Legoyt, in a paper read before the Paris Statistical Society, states that he believes the greater longevity of the Jewish race can be explained by the following facts: 1. The Jew marries earlier than the Christian, and thus derives at an earlier age the advantages which statistics show are incident to the married state. Still, from their well-known prudence and circumspection, it is not to be supposed that they enter upon this until prepared to meet its exigencies. Among them hasty and rash marriages, which are alike hurtful to the health of parents and

children, are rare. 2. The fecundity being less, they can pay much more attention to the preservation of their children. 3. By reason of the small number of illegitimate children they have, they escape the exceptional mortality which sweeps away such children. 4. The Jew does not pursue any calling which demands very hard labor. He is neither an agriculturalist a laborer, mechanic, sailor, nor miner. Before all things, he is the shop-keeper, merchant, banker, artist, *savant*, man of letters, or public functionary. 5. The Mosaic law contains ordinances which, being purely hygienic, must exercise a favorable influeuce on the health—*e.g.*, the verification of the condition of slaughtered animals, the frequency of ablution, the practice of circumcision, and the separation from the husband until a week after menstruation, etc. 6. The strength of the family feeling among the Jews. It is only when it is absolutely impossible, and without distinction of rank, that a Jewish woman does not suckle her child. The children, too, are the objects of incessant and most vigilant care, which indeed is returned by the respect and solicitude which these manifest for their parents, especially when aged or infirm. This is probably one cause of the rarity of suicide among the Jews. 7. The sobriety of the Jews is incontestable. 8. Throughout the entire Jewish community, a warm feeling of charity for the indigent and miserable prevails. 9. The religious Jew is remarkable for his great serenity of mind, and his deep-seated faith in Providence and the high destinies of his race. The constancy, the *pérennité* of the Jewish temperament, is well reflected in his religious faith, which has remained immovable for so many ages. 19. The morality of the Jews, as deduced from criminal statistics, seems to be real, and is only an indication of those regular habits of life which exercise so great an influence on the duration of life.

CLINICAL RECORDS.

"Ex Principiis, nascitur probabilitas: ex factis, vero veritas."

ART. 1.—A CASE OF TETANUS (traumatic) TREATED WITH CALABAR BEAN—DEATH. (Read before the Boyle County Medical Society, June 22, 1869). By JOHN D. JACKSON, M.D., Danville, Ky.

On Friday night, June 11, 1869, was called in consultation with Dr. Rhodes, of Shelby city, to see Wm. Johnson, a stout day-laborer, of 25 or 26 years of age, florid complexion, sandy hair, medium build, weighing probably 160 lbs.

While in the enjoyment of good general health, eight days previously, he had jumped over a fence, and landed upon a portion of a horse's skeleton, one of the ribs of which ran through his boot-sole, and into the plantar arch of the left foot, near the line of the middle of the metatarsal bone of the toe next the little one. He declared that none of the foreign body remained within the flesh; that he examined the rib carefully with the view of determining this. His foot inflaming, he consulted Dr. Rhodes, who advised cold water dressings—which gave him great relief. He got on as well as could have been expected until Thursday, a week following the injury, when, symptoms of tetanus coming on, Dr. R. was sent for. On his arrival he found the case fully marked. He prescribed grain doses of opium hourly, and made a free incision in the line of the wound down to the bone, and applied a mush poultice.

When we saw him on Friday night, some 24 or 36 hours from the time of the first development of the symptoms, he was lying in bed, supinely, with his chest slightly arched, the legs straight extended, arms close to the chest with fore-arms turned over on the breast, the facial and

cervical muscles rigid, with the angles of the mouth a little drawn down, giving slightly the aspect which the old writers on medicine not infelicitously termed the *risus sardonicus*. His skin was bathed in perspiration and felt cold; the limbs were rigid; and, on endeavoring to take his arm to feel his pulse, the muscles could be perceived to be hard and corded, and on endeavoring to move the arm from the chest it seemed to be as rigid as if anchylosis at the shoulder joint existed. The abdominal muscles, also, were as rigid as if they had been wooden. His pulse was 92 to the minute; respiration irregular owing to pain; temperature 101° F.; tongue moist, though slightly coated. His jaws could be opened ¼ of an inch. Every few minutes the patient is seized with general spasmodic contraction of all the muscles of his body, but especially those of the trunk, and more especially those of the back, crying out each time in agony. They continue from 4 to 8 seconds, when relaxation takes place. In a sentence, there is a general rigidity of almost all the muscles, but, in addition to this, general spasmodic contractions are added at brief intervals. He said that his bowels had acted the day previously, and that he had passed his urine a few hours before and desired to do so again, but on making the effort he cannot. Percussion, however, does not indicate much of an accumulation; palpation amounts to nothing in determining the point, owing to the exceeding rigidity of the abdominal walls. Thought it unnecessary at present to introduce a catheter. The foot wounded is much swollen and inflamed, and suppurating at the wound.

Recollecting the very favorable result of the whisky treatment, as recorded in the statistics of the New York Hospital some years since, we determined to try it faithfully with him during the night, and, if a manifest improvement resulted, to continue it; otherwise, to commence the calabar bean treatment in the morning.

The object was to produce partial intoxication and to keep it up. With this view, a half tumbler of whisky was given him at once, though with a good deal of difficulty, owing to the frequent spasms while in the act of drinking. The fluid was administered by means of a pipe-stem put between the teeth, the free end being immersed in the spirits in the tumbler. The spasmodic contraction of the muscles of the jaw sometimes being so great as to deeply indent the stem, and causes the patient to cry out to us to take it away from between his teeth. The whisky was to be repeated every two to three hours, and every two to four hours, according to effect; ¼ gr. of morphia given.

Saturday 12th, 9 A. M.—No sleep during the night past Evidently much worse. Lies now with back much more arched; and cries out with the pain of the spasms every few seconds. Was able only to take some three-quarters of a pint of whisky during the night. Objected to it because of the difficulty of swallowing, and said it also made him sick at the stomach; when well, we learn that, he was not unaccustomed to the use of spirits. Pulse 120; temperature 101; respiration irregular, but about thirty in the minute; on counting with a watch, the spasams were observed to reappear every five to ten seconds, though they are of but two or three seconds' duration; about every two or three minutes one much more violent in character comes on; his whole body is bathed in perspiration, and his arms and legs are perfectly rigid.

We thought it useless to pursue the whisky treatment longer, but commenced at once the use of the calabar bean. For this purpose, we were compelled to use the crude article itself, neither the alcoholic extract nor the tincture being procurable. We happened, however, to have one of the beans, which had been presented us, as a sort of curiosity, by a friend, at the late meeting of the

"Kentucky State Medical Society," and at once sent an order to Mr. Wayne, of the firm of Suire & Co., of Cincinnati, for the extract. Upon being carefully decorticated, we found the contents of the bean to weigh fifty-six grains, and, on pulverizing, two grains were lost; the remaining fifty-four grains we had divided into eighteen powders, each of three grains, the agreement being to give one every hour, until an effect was produced, then at shorter or longer intervals as might be indicated.

Dr. Rhodes remained with the patient until evening. On meeting again in consultation, at 8 o'clock P. M., he informed me that the first dose was given at 9 A. M., the second at 10, and, no appreciable effect following, at 10½ it was repeated, then at 11, at which time no effect, either in a diminution of the general symptoms or by contraction of the pupils being apparent, he continued their administration every quarter of an hour until 2 o'clock, at which time the patient complained greatly of burning pain in the stomach, and a marked diminution of the rigidity of the muscles; the frequency and violence of the muscular contractions, was apparent for an hour, or an hour and a half, i. e.: between two and three or half-past three o'clock; he said that the contractions, though frequently present, were comparatively mild; though, being frequently jerked, he did not cry out. At at one time, he thinks, he went nearly as long as fifteen minutes without emitting any cry. Having given so large a quantity of the medicine, 48 grains, he had concluded to give no more until we should again meet in consultation.

On examining him at this time, 8 o'clock P. M., found his pulse 88 to the minute (the doctor says that between two and three o'clock it was 75); temperature 101; respiration as heretofore, so irregular from recurrent spasms that it was difficult to determine it, but might be placed

at thirty; the skin was still bathed in pesspiration, a little pool of at least half an ounce of sweat resting in the pit formed just above the sternum by the tense sterno-cleido-mastoid muscles. He is very thirsty, and still complains of great burning heat of the stomach and bowels, though not nearly so much so as two or three hours since; he hawks up a foamy saliva, untinged by blood, every few minutes, and desires the attendants to constantly fan him. He has passed his water sufficiently freely during the day, and passes a good deal of wind per anum, of which he complains. On observing carefully the rigidity of his limbs it is evident that it has diminished most markedly; he can now lift up his legs, and bend them on the thighs, and the thighs on the pelvis. On making the experiment, I find I can bend the fore-arms and lift the arms from the shoulders, a thing impossible this morning; the rigidity of the abdominal muscles has also much diminished, though is yet very marked. His back and neck are perfectly rigid, though not so arched as hitherto. On examining his pupils, find them contracted and unyielding to light, though not contracted to the mere point, which I supposed the medicine capable of producing—am pretty sure that I have sometimes seen opium contract the pupils more. Despite the apparent improvement in some of the general symptoms, the relaxation of the muscles most especially, the fact is evident that the patient cannot really be considered better. His spasms are just as frequently recurrent now as formerly and of about the same violence. Counting, watch in hand, the poor fellow is racked from seven to ten times the minute. We now gave a double dose of the calabar bean, the last we had, and applied a blister, three inches wide, over the spinal column, from the nape of the neck to the sacrum, and left grain doses of morphia to be given every half hour *pro re rata.*

The spasms continued in unabated frequency and violence, despite the regular administration of the morphia in such quantities, and though the blister drew well, he died of asthenia at 6 o'clock next morning. Up to the time of his death, the limbs remained flexible.

To sum up, though the physiological effect of the remedy used in the above recorded case was perfectly evident, which effect in accordance with our pathological ideas of the disease, we would suppose to tend toward overcoming the malady, yet, on taking a retrospective view of the case, we must admit that we can hardly say certainly that the progress of the disease toward its fatal termination seemed in the least affeeted. Had more of the article been at command to use, perhaps the result might have been different, but as it was, the intense burning pain of stomach and bowels, with the salivary expectoration, exhibited an effect disposed to produce some hesitation in raising the dose higher.

In the "Richmond and Louisville Medical Journal" for May, 1869, Dr. Greenleaf sums up 19 cases of tetanus, treated by calabar bean, 12 of which recovered—thus showing, according to statistics, a better record for the "bean," than is shown for any other remedy. Dr. G. very properly concludes his article by saying that in attempting to arrive at the virtues of any article of the materia medica, that only such cases as are recorded are accessible, and that probably "many unsuccessful cases may have occurred of which we are in ignorance, it being unfortunately the tendency of the profession to bury with their patients, the records of such cases."

Nothing in medicine is truer than Dr. G.'s observation, and I think we should ponder it well. The value of statistics in medicine, depends not alone upon the number of cases of disease recorded as cured, but just as much upon those terminating unsuccessfully. One of the strong-

est objections to the numerical method of Louis, hard as it is upon statistics, is the imperfection of the records of the successful, and the neglect to record at all those terminating unfavorably.

The history of medicine might not unjustly be compared to a map of the world, and a record of cases terminating favorably alone, would be like a chart which alone had upon its face the open seas, continents and larger islands, showing to the sailor and traveler, the plain sailing and open day-roads of navigation and travel, but making no provision for the storms and the night by marking the shallows and sunken rocks, the breakers and whirlpools, the quicksands, pitfalls, morasses and hidden dangers.

The true value of this new therapeutic agent from which the profession has recently been led to expect so much, will depend upon the future record of *all* cases treated with it, regardless of their termination.

ART. II.—CASE: AMPUTATION OF SHOULDER JOINT. By HIRAM WANZER, M.D., Chicago, Illinois.

I was called, December 28th, ult., to Mr. C——, German, æt. 51. He was rather spare, small in stature, with constitution not vigorous. He had suffered from the age of sixteen, with discharging ulcers upon one leg and foot, which had healed two years since. He was one of the employees of Moody & Church. While engaged at a surfacing planer, which has a cylinder with three cutting knives, performing some 3,500 revolutions per minute, the fingers of the right hand were caught in the machinery, and its deadly work was not finished until the hand, fore-arm and arm, were drawn in and severed by piece meal, as far as the upper fourth of the humerus; further advance and destruction was prevented by the contact of

the chest and shoulder against the planer. The patient was taken to a druggist, who administered morphia and diffusible stimulants. There was now sufficient pulse and vitality, to justify operative procedure, but the surroundings being unfitted, he was taken to his residence, one and a half miles. The length of time and the degree of suffering during his transit home, were succeeded by shock and such extreme prostration of the vital powers, that operative measures were thought contraindicated. Drs. H. T. & E. W. Lee were called in consultation. I improved the moments before their arrival by the administration of strong coffee and diffusible stimulants, which had but little effect, either in increasing the heart's action or in arousing the vital energies. I thought it judicious to follow the opinions of some of our most eminent surgical authorities, in waiting for warmth of the surface, color, pulse at the wrist, consciousness, and a greater degree of reaction, especially before proceeding with such a formidable operation. It was the opinion of the counsel that no further reaction could be obtained, that operative measures only were indicated. Drs. Lee administered chloroform to anæsthesia, carefully noting the pulse and respiration. During its early inhalation, the almost imperceptible fluttering pulse became increased in tone and volume. There had been very little hæmorrhage, in consequence of the torsion of the vessels. The brachial artery was pulsating at the bottom of the wound, the torn terminal branches of the brachial plexus were lying by its side. The question arose whether to disarticulate the head and remaining shaft of the humerus by incision, or separate the soft parts from their circumference. I chose the latter, to avoid opening the cavity of the joint, and prevent so large a suppurating surface. After ligating the brachial artery, the soft parts were carefully detached from the bone, by the fingers and

scalpel. There were difficulties encountered in reaching and perforating the capsular ligament in consequence of its distance and density. At this juncture we were suddenly stopped; the pulse forsook the wrist, respiration was momentarily suspended: free admission of atmospheric air, cold jets of water were thrown upon the surface, with recumbency. The patient soon gasped; the pulse was again perceptible at the wrists; respiration reëstablished; the operation was resumed and finished. Considering the lesion of the blood vessels, caused by the accident and operation, the hæmorrhage was insignificant, the brachial artery only required ligation. The flaps handsomely formed by the machinery, were coapted by several interrupted sutures, etc. Heat and derivatives were now applied to the cold surface and extremities. He now speedily reacted from the shock of the injury and operation, when a cordial stimulant was given.

9th, 8 A. M.—Visited patient with Dr. E. W. Lee; found the pulse 120 per minute with surprising strength and volume; there was general warmth and moisture upon the surface. He had enjoyed some refreshing sleep. The following day there was an erysipelatous glow, with heat and tenderness, in the axilla, which soon disappeared by cold lotions; and 20 gtt., every three hours, of tinct. ferri. muriatis, alternated with Rhine wine, his accustomed beverage, were all the internal medicines given throughout the treatment. His appetite daily increased; the secretions normal. A small part of the wound united by the first intention with very little suppuration. I ascribe his speedy recovery much to his former uniform habits, the plasticity of the blood, and to the entire withholding of all narcotic remedies.

Remarks: As stated, morphia was administered by the apothecary. That would, once, have been my procedure, until surgical experiences taught me that narcotics, under

the circumstances, not only allay pain but they obtund nerve sensibiliy; they often paralyze the brain and heart; frequently they conduct our patient into a quiet sleep which knows no waking. So seductive, then, are their actions, it matters not how minute the dose, it is difficult to determine whether our patient is suffering from the prëexisting shock or from the action of the medicine. So contraindicted, as I believe them, to be for pain, after traumatic injuries, I have abandoned them for medicines that exalt the vital actions; pain then becomes a theraputic agent, a priceless stimulant to our patient, an excitor to organic action in the struggling reaction. Pain is a conflict for the mastery, that he often feels long after the pulse has left the wrist, and frequently abiding until the spirit takes its flight. I find, in searching the records of some of our most eminent surgical authorities, that there are conflicting opinions about operating before reaction is established.*

I am confident my surgical career would have been brighter and more successful had I used less opium and its alkaloids, and had I frequently acted with a greater degree of promptness, as in the case reported. In waiting too long for reaction, it often never comes; in being too conservative, trying to save a wortless member, the patient has often sunk from pyæmia and exhausting suppuration; or he has often passed, before this process was established, into tramatic delirium, tetanoid symptoms and death.

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*It is well known that Abernethy and others sanctioned operation before reaction had been secured, and this case is particularly interesting to all who have read the same views as advanced recently by Crouch and Callender before the London Clinical Society.—Ed.

ORIGINAL CORRESPONDENCE.

"Sit mihi Fas scribere audita."

PARIS, July, 1869.

Cl. Bernard's lectures, from which I had intended to give you occasional extracts, have terminated long before the appointed time. I do not know the reason, unless it is that the great honors, which have lately been showered upon this prominent man, have directed his attention to other channels for the moment.

Cl. Bernard—a Senator and a member of the French Academy! Great titles, these, in this country. The first gives him the right to a sort of Baronet's crown and 30,000 francs a year, that is all; for, as far as his influence as a political statesman is concerned, he, I believe, quite unlike Virchow, of Berlin, cares but little, and has still less aptitude to make a politician of himself. But even here he can do an immense deal of good for the advancement of science. Already, through his influence, the project of a magnificent hall for physiological, chemical, and physical experiments—such a one has just been finished in Leipzig, under Ludwig, at a cost of 3,000,000 francs, and which surpasses by far anything of the kind in Europe—has received a very favorable hearing from the Emperor, and is to be constructed.

As a member of the Academie Française, he occupies the place made vacant by the late Flourens. This makes him twice a member of the Institute de France. The Institute, namely, comprises 5 sections, which are: first, the French academy; second, the academy of belles lettres; third, the academy of sciences; fourth, the academy of fine arts; fifth, the academy of moral and political sciences. Cl. Bernard is a member of the academy of sciences, and now lately of the French academy.

He chose, for the subject of his inaugural address, La Vie. He treated this complex and profound question solely from a physiological point of view, and for that reason was but faintly understood by the members of this palace of literature. M. Dechambre relates that one of the hearers, upon being asked how he liked the address, replied: When Rossini was once asked what he thought of a certain opera, which he had just heard, said "I shall judge of it after another hearing, but I'll not go back again;" and the literary man added, "I did not understand all of the discourse, but I'll read it."

Brown-Séquard, for whom has been created the Chair of Experimental Medicine at our faculty, promised to hold weekly meetings in the old Musēē Dupuytren, until the beginning of his official lectures at the school, which are put off until next winter. But he ended with two lectures because there was a want of material (?) or, better said, a want of good will on the part of our stingy administration to furnish the necessary means. The experiments, made before the class, had in view the etiology of epilepsy, a subject with which the professor seems especially to occupy himself at present. He holds out the hope, moreover, that the means of a cure—for some cases of the disease at least—may be brought to light from these experiments. Certain, it is, that he can create epilepsy in some animals, and not only by a lesion of the nervous centres, which by most pathologists are looked upon as the exclusive seat of the malady, but also by peripheric irritations.

He showed us twelve or fifteen Guinea pigs which had suffered a section of a lateral half of the spinal cord from one to six months ago. These animals were not merely spontaneously epileptic, in consequence of this mutilation, but the epileptic attacks, which lasted from thirty to sixty seconds, and perfectly characteristic,

marked by tonic and clonic convulsions, loss of consciousness, followed by torpor, could also be provoked at will. In order to produce the attack, it is necessary to irritate a certain portion of the body. This portion, to which Brown-Séquard has given the picturesque name of "Zone épileptogène," includes the skin of the lateral part of the face and neck of the animal, which is animated by the third and fourth pair cervical and the fifth pair cranial nerves. There is no other part of the body, which, by irritating it, can produce the attack like this region. If the section of the spinal cord has been made on the left side, we must pinch the epileptic zone of the opposite side. Strange to say, the irritation of the nervous trunks themselves, which supply this region—*e. g.*, third and fourth cervical and fifth cranial—do not disturb the animal in the least. The same phenomena, as those produced from hemisection of the spinal cord, show themselves from the section of the great sciatic in the thigh. The epileptic attack is even more violent. One of the animals, which had thus suffered the section of the sciatic nerve on one side and a section of the lateral half of the spinal cord on the opposite side, caused it to be doubly epileptic; that is to say, the zone épileptogène in this case was bilateral, so that the pinching of the skin on either side produced epileptic convulsions.

A remarkable fact is the loss of sensibility, which exists in the epileptic zone after hemisection of the spinal cord; and if, with any caustic, or the hot iron, we destroy the skin of this region, so as to form an eschar, the attacks, both spontaneous and provoked, cease, and the animal is cured of epilepsy.

This suggests to my mind a patient, who entered Prof. Verneuil's wards, about two months ago, to be operated for an ectropion. This man, epileptic from his infancy, fell into the fire two years ago, during one of his attacks,

burning the whole side of his head, face, and neck, in a most horrible manner. I mention the case because this patient has not had a single attack since the accident; whereas, before that time, he had two and three a week. I do not attempt to explain the case, I merely record the fact; and I am sure this is not the only instance where epileptics have been cured of their disease by large traumatismus.

The cervical ganglia of the sympathetic nerve play an important part in epilepsy. The pallor of the face—the almost constant initiatory symptom of the attack—is produced by the contractions of the vessels of the face, which are under the control of the nerves emanating from these ganglia. The second most frequent symptom present, is the dilatation of the pupil, produced by a contraction of the vessels of the base of the brain, also under the control of the ganglia. These phenomena can be demonstrated upon animals made epileptic by the hemisection of the spinal cord or the section of the great sciatic nerve; for, if we irritate either the skin of the zone épileptogenè, or the sympathetic in the neck, we produce a contraction of the vessels, which supply the surface of the cerebral lobes of the same side, so as to render them pale and almost bloodless. This contraction of the vessels, however, is only limited to the surface and the membranes of the brain. If, while galvanizing the sympathetic in the neck, we plunge a knife into the interior of the lobes of the cerebrum, we find the capillaries gorged with blood: proof that other nerves than those coming from the cervical ganglia go to supply the capillaries of the interior of the brain. From this, Brown-Séquard concludes that the loss of consciousness, which we observe at the onset and during the attack of epilepsy, is due to an accumulation of blood charged with an excess of carbolic acid.

These conclusions destroy Kussmaul's and Tenner's celbrated theory, which assumes that the epileptic attack is due to a contraction of *all* the vessels of the brain, and consequently to a want of oxygen to the entire encephalon. Thus we find one great theory crushed and another created upon its ruins. Kussmaul owes his name, his first reputation, to this theory on epilepsy. This, more than all else, promoted him to the professorship of clinical medicine in Freiburg. But his reputation cannot suffer from these contradictory experiments in the least. Perhaps another physiologist will some day come, when our knowledge of the substance of the brain may be farther advanced, and prove, with equal plausibility, that neither one nor the other theory is tenable.

I made mention, in one of my letters, of the good results which had been obtained by M. Dolbeau, in a case of stricture of the œsophagus, produced by the accidental ingestion of sulphuric acid, and which had been treated by the internal bilateral incision, followed by gradual dilatation with the sound. I have had occasion to observe two similar cases since that: one in Dolbeau's wards, the other at the Lariboisière Hospital. The first of these two cases resembled in every respect the one described in the May number of your journal, with this difference, however, in the operative procedure: An antero-posterior incision had to be practiced, with the same intrument, bilateral incision did not sufficientlly destroy all the cicatricial bands. The patient, a child, twelve years old, is now perfectly cured. The other case turned out less fortunate; it proves that the catheterismus of the œsophagus is not always an innocent operation; for the patient was in charge of M. Verneuil, to-day the first surgeon of Paris. A boy, aged 18 years, who had swallowed a small quantity of sulphuric acid, a few days ago, was brought into Dr. Cusco's

wards with pleurisy; but finding, after some days of treatment, that the stricture of the œsophagus was such that scarcely liquids could pass, the patient was removed to the surgical wards. Verneuil succeeded in passing a No. 1 olive—the olive in this case was of metal, not of ivory—which entered, as he thought, the cavity of the stomach; for the patient said he felt better immediately after the operation, and complained of no pain. He even asked for some wine, which I saw him drink. Assured of the success of the case, you may imagine my astonishment when, two mornings afterward, I was called into the autopsy rooms to assist at the examination of the body. The sound, instead of entering the cavity of the stomach, had encountered, about three inches above the cardiac orifice, a second stricture, and had here pierced the already softened walls of the œsophagus, halting at the pleura of the left lung. I say the "already softened" œsophagus, because the autopsy showed plainly that the tube at this point was soft and macerated, not from the perforation, but from the surrounding pleuritic effusion. A kind of sac had here formed itself, in which we found a purulent liquid, mixed with wine and other fluids, which the patient had attempted to take after the operation and before his death. We have a proof in this autopsy that strictures, from sulphuric acid, are not always at the entrance, or at least the upper portion of the œsophagus, as is generally believed. The case turned out unfortunately, but we can attach no blame to the operator.*

In my next I will give you some interesting information in regard to Verneuil's method of treating complicated fractures.

R. Good.

* A very interesting case, with a similar result, recently occurred in this city. Verneuil's case will go far to relieving the Louisville operator of all blame.—Ed.

MILTON, Ky., July, 1869.

In the June No. of your Journal, Dr. David Yandell, in his article on carbolic acid, referred to some cases of purulent cystitis, successfully treated by injections of saturated sol chlorate of potash. In corresponding with him, I gave a history of some cases treated in this manner by me, and requested him to try it in his practice. The first cases, in which I treated the chlorate, were in aged patients, afflicted with chronic purulent cystitis, from enlarged prostate and gravel. There was intense pain during micturition, and the urine dark, thick, containing pus, some fibrinous membranes and blood. The pain from micturition was so intense as to cause hard chills and great prostration. I used injection of morphine, bi-borate of soda in glycerine, nitrate of silver and carbolic acid, without much positive relief. I then tried the chlorate, having used it before as a dressing to supperating wounds and sores. These gave immediate relief; pain gradually ceasing, and pus and blood entirely disappearing from the urine.

I next used it in a case of cystitis, caused by difficult labor, the fœtal head, having lodged against the symphysis pubis and necessitating forceps delivery; this fully relieved the pain and entirely stopped the purulent secretion in the urine.

Dr. Buskirk, of Bedford, Trimble county, gave me some notes of a case of purulent cystitis, in which he used this remedy. He and Dr. Hancock were treating a case of hemeplegia in an aged female, with retention of urine from paralysis of the bladder. Here are his notes:

July 10th. Mrs. Jude L., paralyzed, four weeks ago; hemiplegia; ordered 1.20 gr. of strychnia and the urine being retained was drawn off by catheter, night and morning. Urine very dark colored; strong ammoniacal odor. Two weeks ago, or a fortnight after the

attack, found pus and blood in the urine, and extreme pain over the hypogastric space. Ordered applications of warm hop-sacks, and we then resolved to use our remedy—the chlorate of potash. Drew off the urine, and injected a saturated sol. of chlorate potash. Injected ℥iv sol. and gave tablespoonful three times per day. Marked improvement from the first injection; less pain. On the second day she passed urine voluntarily, without catheter. This urine contained only a few pus globules; no blood; was clear and free from any odor. Used the injections again and she now "passes water" freely, without any pain during micturition—the urine is perfectly clear and natural, without odor, and she has no hypogastric pain or tenderness Altogether, we are very much pleased with the remedy.

Yours respectfully,

JAMES ELY, M.D.

ELIZABETHTOWN, KY., 1869.

I send you, in connection with an account of its history and removal, a hypertrophied parotid gland. The tumor was removed from the person of Mr. Henry Bush, of Hardin county, Ky. He is a farmer by occupation, is 38 years of age, fine physical strength and general health good. The tumor is the left parotid gland; is nine inches in circumference longitudinally, and six inches in circumference transversely. Mr. Bush had parotitis in 1853, and when the inflammation subsided, he still observed an enlargement about the left side, which commenced growing slowly but constantly; up to within the last four years, its growth has been very rapid and had attained a size that gave him very considerable inconvenience, especially when lying down, hence the necessity of its extirpation. I removed it, assisted by Dr. W. N. Lambuth, on the 6th day of February, 1869, by making two ellipti-

cal incisions, extending from a short distance above the zygomatic arch of the temporal bone, three and one half inches down the neck; dissected the flaps back and raised the tumor from below upward. Mr. Bush has done well, the wound having healed by the first intention, however he is to some extent disconcerted by his face having lost its parallelism.

I was induced to believe the structure I sent you was a hypertrophied parotid gland, from the fact of its having dated to the time of having mumps; by coming in contact with the anatomical structures with which the gland is related in its removal, by emptying the posterior portion of the glenoid cavity, by the division of the motor branch of the seventh pair of nerves, and the ligation of the external carotid artery. I would think it possible by the hypertropheid condition of the structure that it had lost its identity. However, I will be obliged to you if you will give it a microscopic examination, and if you cannot identify the gland please tell me what it is. Mr. Bush, the gentleman from whom the specimen was taken, is frequently in the city, and if you think it would contribute to a determination as to what it is, I will have him call at your office. I will expect you, of course, to consult your own judgment as to what disposition you make of this report. Very respectfully,

R. B. Pusey, M.D.

Augusta, Ky., May, 1869.

I recently operated on a case of ovarian tumor (Mrs. K., of Paris, Ky.), of some interest, perhaps, to the profession, and so soon as sufficient time has elapsed I will detail its proper historic interest.

The case was examined by Profs. Mendenhall, Graham, and Richardson, of Cincinnati, and Dr. Henderson, of Covington. Some disagreement ensued, whereupon the

case was tapped. The walls of the abdomen collapsed, showing no fleshy growth, and it was pronounced then a simple tumor and easy of management. When I saw the case, the tumor had attained its former size, and but little movement could be made in any direction. I found, however, as I thought, and expressed, adhesions to the left side. When I made the incision (Drs. Henderson and Jessup, of Covington, and Barnes and Keller, of Paris, being present), we found adhesions of a formidable and almost insuperable character to the omentum, smaller bowels, peritoneum, womb, &c., &c. The operation lasted over one hour, and three times did we have to suspend the use of the chloroform and give stimulants to rally the strength. In two respects, the case was peculiar, the adhesions were unusually long, not less than four inches in length; all but one, and that to the womb, which was short and broad as the hand, and inserted into the tumor in four different bands. To some of the adhesions ligatures were applied, cut close, and returned into the abdomen. The hæmorrhage was considerable, with all the caution which could be used. Another singular feature of the case was that with all the adhesions formed, at no period in the history of the case, was there any inflammatory action, but little pain, no diffused soreness or confinement to house, which usually characterises the formation of adhesions.

After the first six hours, the patient rallied, and has gone on steadily to improve—now four weeks since the operation.

This is now my twenty-seventh case and but three deaths.

I have uniformly adhered to the silk ligature and silk suture, but the multitudinous innovations and improved style, now going on, will arrest, my attention when the rule is broken to "Let well enough alone."

J. Taylor Bradford, M.D.

REVIEWS AND BIBLIOGRAPHICAL NOTICES

"Judex Damnatur cum nocens Absolvitur."

SANITARY MEMOIRS OF THE WAR OF THE REBELLION, COLLECTED AND PUBLISHED BY THE UNITED STATES SANITARY COMMISSION. CONTRIBUTIONS RELATING TO THE CAUSATION AND PREVENTION OF DISEASE, AND TO CAMP DISEASES; TOGETHER WITH A REPORT OF THE DISEASES, ETC., AMONG THE PRISONERS AT ANDERSONVILLE, GA. Edited by AUSTIN FLINT, M.D. New York. Published for the United States Sanitary Commission: By Hurd & Houghton, 459 Broome Street.

Of this volume, 212 pages, or nearly one-third, is from the pen of a Confederate surgeon, Dr. Joseph Jones, at present occupying the Chair of Chemistry in the Medical Department of the University of Louisiana, New Orleans.

The opportunities enjoyed by Dr. Jones for investigating disease were excellent and unlimited. Chapter ninth, "on the Prevalence and Fatality of Pneumonia and of Typhoid Fever, in the Confederate Army, during the War of 1861-1865," was contributed by Dr. Jones, and embraces a large number of statistical tables, consolidated from the records on file in the Surgeon-General's office, at Richmond, illustrating the diseases of the Confederate soldiers.

The following extracts will illustrate the nature of these labors, and also embody some of the most important conclusions:

"From this table, it appears that in the Confederate army, with a mean monthly strength of 160,231 officers and men, 1,057,349 cases of disease and wounds were entered upon the field reports during a period of nineteen months (January, 1862, to July, 1863, inclusive); and of this number pneumonia constituted 28,273. Seventeen and six-tenths per cent. of the mean strength of the army, on an average, suffered with pneumonia, during a period of nineteen months; and this disease

constituted two and seven tenths per cent. of all cases of disease and wounds entered upon the field reports. During this period of nineteen months, 397,406 cases of disease and wounds were entered upon the hospital reports, and of this number 15,542 were recorded as pneumonia; this disease, therefore, constituted 3.15 per cent. of all the cases of disease and wounds entered upon the hospital reports. The cases of pneumonia entered upon the field and hospital reports were relatively most numerous as compared to the mean strength and the total sick and wounded during the months of December, January, February, March and April; whilst the smallest number of cases were recorded upon the field reports and transferred to the general hospitals during the months of August, September, and October. As a general rule the cases of pneumonia diminished, as the temperature became more elevated, and the vicissitudes of the season less marked. The month of July, 1862, is an apparent exception; but it will be observed that the number transferred to the general hospitals was very small, only 491, or 2.59 per cent. of all diseases and wounds; and, during the same month, in 1863, the number of cases of pneumonia is smaller relatively than in any other month, being only 0.106 per cent. of the mean strength, and 0.98 per cent. of the sick and wounded transferred to the general hospitals.

The disease, therefore, would appear to depend in a large measure upon seasons; or, in other words, upon the effects of exposure to cold and wet, and to marked vicissitudes of heat and moisture;" pp. 336, 337.

Tables are given pp. 338-340, which furnish data for the investigation of the effects of elevation, geographical position, and temperature upon the prevalence of pneumonia.

"In the Confederate forces serving in Virginia (chiefly in this State), and North Carolina, with a monthly mean strength of 79,396, during a period of nineteen months, 443,167 cases of disease and wounds were entered upon the field reports, and of this number pneumonia constituted 11,025; that is, on an average during this period, 13.88 per cent. of the mean strength was affected with pneumonia, and this disease constituted 2.48 per cent. of all cases entered upon the field reports. During the same

period, 303,886 sick and wounded were entered upon the hospital reports, and of this number, 10,743, or 3.53 per cent., were recorded as pneumonia.

"In the Army of the West, afterward called the Army of Tennessee, which operated chiefly in the elevated regions of Tennessee, Kentucky, Alabama, and Mississippi, with a monthly mean strength of 40,278, during a period of twelve months, 226,721 cases of disease and wounds were entered upon the field reports (some of the hospital reports appear to have been lost), and of this number, pneumonia constituted 6,974; that is, on an average during this period, extending from the 1st of June, 1862, to the 31st of May, 1863, 17.31 per cent. of the mean strength were attacked by pneumonia, and this disease constituted 3.07 per cent. of all cases entered upon the field reports. During the period of twelve months (April 1st to October 31st; May 1st to July 31st), in the hospitals of the West, located in Tenn[illegible] per Georgia, and Alabama, 54,672 sick and wounded were entered upon the reports, and of this number 2,957, or 5.43 per cent. were recorded as pneumonia.

"The proportion of cases of pneumonia appears, therefore, to have been greater in the elevated regions of the West than in Virginia. It is probable that the modifying effects of the ocean upon the climate of Virginia was the chief cause of the difference.

"On the other hand, in an army of 25,670 men (average monthly strength), serving along the low, wet parts of South Carolina, Georgia, and Florida, during a period of nineteen month, only 8.25 per cent. of the entire command (mean strength), was attacked by pneumonia; and this disease constituted only 1.35 per cent. of the total number of diseases and wounds entered upon the field reports," p. 341.

"It appears, therefore, from these statistics, that pneumonia prevailed to the greatest extent in the more elevated and northern regions of the Southern Confederacy and in the armies which were subjected to the severest labors, privations, and exposures," p. 342.

"Pneumonia, not only prevailed to a considerable extent amongst the Confederate troops, but it was also one of the most fatal diseases.

Thus in a command, with a monthly mean strength of 25,670 men, serving in the department of North Carolina,

Georgia, and Florida, during a period of nineteen months (January, 1862, to July, 1863), 497 deaths occurred in 2,220 cases of pneumonia. According to this calculation 22.3 per cent. of the cases of pneumonia terminated fatally—or one death occurred in 4.4 cases.

"In the Confederate army serving in the Gulf of Mexico, in and around Mobile, with a mean monthly strength of 6,752 men, the cases of pneumonia numbered 1,161; of the deaths from this disease 151, during a period of eighteen months, or one death in 7.6 cases of pneumonia.

"In the army of Tennessee, during a period of fourteen months, pneumonia caused 1,291 deaths; or, 15.5 per cent., or one death in 6.4 cases of this disease.

"Upon the field reports of General T. J. (Stonewall) Jackson's army, serving in the Valley of Virginia, during a period of ten months, with an average monthly mean strength of 15,562 officers and men, 1,034 cases of pneumonia were reported. During this short period 6.6 per cent. of the mean strength were affected with this disease. The number of deaths entered upon the field reports of General "Stonewall" Jackson's army, was only 50, or 4.8 per cent. of the cases. The returns of deaths were incomplete; it was also true, that the cases of pneumonia in this active and fighting army were in most cases transferred to the general hospital, and chiefly to the large general hospital at Staunton.

"The statistics of the Staunton general hospital furnish the most correct data for an estimate of the mortality of pneumonia amongst the forces serving in the valley of Virginia throughout the war, under Generals Jackson and Early. During a period of forty-five months, (July, 1861, to February, 1865,) in the general hospital at Staunton, Virginia, 833 cases of pneumonia were treated, with 191 deaths. In this large and well conducted hospital, 22.9 per cent. (or one death in 4.3 cases) of the cases of pneumonia terminated fatally,

A portion of this mortality, as well as of the mortality in typhoid fever and gun-shot wounds, was attributable to the previous exposures and fatigues of the sick in transportation from a distance, during the active operations of the Confederate forces.

"The statistics of the general hospitals of Virginia, exclusive of the hospitals in and around Richmond, possess

great interest, as furnishing the most reliable data for the determination of the rate of mortality in pneumonia. During a period of fourteen months, January, 1862, to March, 1863, one hundred and thirteen thousand nine hundred and fourteen (113,914) cases of various diseases and gun-shot wounds were treated in the hospitals of Virginia, exclusive of the hospitals in and around Richmond; out of this number of cases, 5,516 proved fatal; the ratio of deaths from all causes to the entire number of cases treated was 4.85 per cent., or one death in every 20.65 cases; 4,864 cases of pneumonia were entered upon the hospital reports, with a mortality of 1,261, the ratio of deaths being 25.9 per cent., or one death in 3.8 cases; typhoid fever, common continued fever, and pneumonia, together, caused two thousand eight hundred and eighty deaths; that is, a little more than one-half the deaths from all causes were due to typhoid fever and pneumonia, or were exactly 52.39 per cent. During four months, September, 1862, January, February and March, 1863, one thousand five hundred and twenty-seven cases of pneumonia were entered with four hundred and five deaths, upon the reports of the military hospitals in and around Richmond, Virginia; the ratio of deaths from pneumonia to the entire number of deaths from all causes was 19.22 per cent., or one death from pneumonia in 5.42 deaths from all causes; whilst on the other hand, the cases of pneumonia during these four months were only 3.54 per cent. of the entire number of cases treated during this period; typhoid fever, common continued fever and pneumonia caused 41.67 per cent. of all the deaths from all causes."

"During four months, April, May, June and July, 1863, one hundred and eight thousand one hundred and sixty-five (108,165) cases were treated in the general hospitals in Virginia, including those in and around Richmond; and the number of deaths during this period was two thousand seven hundred and five (2,705), the ratio of deaths from all causes, to the entire number of cases treated, was 2.5 per cent.; that is, one death in 29.98 cases; 24.14 per cent. of the cases of pneumonia terminated fatally, or one death in 4.05 cases of pneumonia; 21.29 per cent. of the deaths from all causes were due to pneumonia: whilst, on the other hand, this disease formed only 2.16 per cent. of the entire number of cases of all diseases; the ratio of deaths from typhoid

and common continued fever, to the entire number of cases of these diseases, was 17.77 per cent., or one death from these diseases in 5.62 cases; the deaths from typhoid and common continued fever constituted 18.82 per cent. of the entire number of deaths from all causes; whilst the cases of typhoid and continued fever formed only 2.64 per cent. of the entire number of cases of all diseases; pneumonia and typhoid fever and common continued fever, together, caused 40.11 per cent. of the entire number of deaths from all causes, these diseases included; or one death from these diseases occurred in 2.49 deaths from all causes; whilst, on the other hand, the cases of pneumonia, typhoid and common continued fever constituted only 4.81 per cent of the entire number of cases treated." P. 348.

A large number of tables drawn from the statistics of individual hospitals are given by Dr. Joseph Jones, illustrating the important part which pneumonia and typhoid fever played in the destruction of the Confederate troops.

Another observation which Dr. Jones fully sustains by statistics, is that typhoid fever progressively diminished during the progress of the war and disappeared almost entirely from the veteran armies; whilst, on the other hand, pneumonia continued to prevail and appeared to be chiefly dependent upon the vicissitudes of climate. Thus, in the general hospital at Charlottesville, Virginia, during the greater portion of the war, from July 1, 1861, to January 1, 1865, 1426 cases of typhoid fever were treated, and these were distributed thus, during the last six months of 1861, 866; during 1862, 299; 1863, 190, and 1864, only 71 cases of typhoid fever.

"In the general hospital at Staunton, Virginia, the cases of typhoid fever decreased in the following manner: In 1861, 868 cases and 47 deaths in 1862, 779 cases and 239 deaths; in 1863, 365 cases and 58 deaths; in 1864, 102 cases and 29 deaths.

In chapter eleventh, on Cerebro-spinal Meningitis, by Sanford B. Hunt, M.D., etc., we find that the researches

of Dr. Joseph Jones, on this disease, are accepted as conclusive in settling its true pathology. After giving one of his cases, as typical of cerebro-spinal meningitis, the following conclusions, by Dr. Jones, are accepted as established by his investigations

"1. There was no complication with malarious disease.

"2. The products of the inflammatory action resemble in all respects those of pleuritis and peritonitis.

"3. The inflammatory action appeared to be confined chiefly to the pia-mater, involving, to a certain extent, also, the arachnoid.

"4. The nervous elements of the brain, spinal cord and cervical nerves (ganglionic cells, commissures, nerve tubes and nervous connective tissue,) appeared to be free from inflammatory action.

"5. If the nervous elements were primarily involved in cerebro-spinal meningitis, it would be impossible to explain the suddenness and violence of the symptoms and rapid fatal results in the absence of all lessons recognizable to microscopical investigation; on the other hand, it can be readily conceived that the inflammation of the nutritive membrane, and the coating of the most delicate organs confined in a bony case, with a dense exudation tending to organize itself progressively into more firm and resisting structure, might give rise to all the phenomena of cerebro-spinal meningitis.

"6. This case furnishes an explanation of the very fatal character of this disease, as well as of the tedious nature of its recoveries. Even after the subsidence of inflammatory action in the meninges, the most serious consequences may follow, and all the derangements of the essential functions of life may be kept up by the mere mechanical action of the fibrous effusion. The period of convalescence from this disease would depend not only on the amount of effusion, but also on the character and rapidity of the subsequent changes.

"7. The disease appeared to have been produced in this patient by the same causes which are active in the production of other inflammatory affections as peritonitis, pleuritis, pneumonia and acute rheumatism. namely: exposure, cold, damp weather and the hardships of camp life.

"8. In its essential nature this case differed from a con-

tagious malignant fever. There was not a single fact developed in the post-mortem examination that would justify the classification of this disease with the *pyrexiæ*. If cerebro-spinal meningitis belongs to the class of the febrile diseases, then pneumonia, pleuritis and acute peritonitis should, in like manner, be stricken from the list of the phlegmasiæ."

The editor, Dr. Hunt, adds: "In commenting on the preceding extended and exhaustive report (and we have been compelled to somewhat curtail its minuteness of detail,) we see, first, that this was a typical case of cerebro-spinal meningitis; that it was epidemic in character, being one of a number of simultaneous cases; that the period of death was deferred until all the phenomena had time for development; that the autopsy was thorough and conscientious; and, finally, that its subsequent study and illustration are worthy of full confidence.

"Accepting this, then, as a type of the epidemic form of cerebro-spinal meningitis, it is only necessary to inquire in how much other records in our possession may be contradictory of this case.

"The theory which Dr. Jones seeks to establish is, briefly, that cerebro-spinal meningitis is not a fever but a local inflammation; that it is not contagious; that therefore we may allow its contact in hospital wards with other patients; and, finally, that all our hygienic efforts may be directed to its original and not its secondary causation—because the latter does not exist." Pp. 395-396.

We now turn to the larger, and in many respects, more important contribution of Dr. Joseph Jones, which forms the third and last section of these sanitary memoirs, viz: "*Section third. Investigations upon the diseases of the Federal prisoners confined in Camp Sumpter, Andersonville, Ga.*, instituted with a view to illustrate chiefly the origin and causes of hospital gangrene, the relations of continued and malarial fevers, and the pathology of camp diarrhœa and dysentery."

Hearing of the unusual mortality amongst the Federal prisoners confined at Andersonville, Dr. Jones (as we learn) expressed, during an official visit to Richmond, Va., in the month of August, 1864, to the Surgeon-Gen-

eral S. P. Moore, C. S. A., a desire to visit Camp Sumpter, with the design of instituting a series of inquiries upon the nature and causes of the prevailing diseases. Small-pox had appeared amongst the prisoners, and he believed that this would form an admirable field for the establishment of its characteristic lesions. The condition of Peyer's glands in this disease was considered as worthy of minute investigation.

It was also believed by Dr. Jones, that a large body of men, from the northern portion of the United States, suddenly transported to a warm southern climate, and confined upon a small portion of land, would furnish an excellent field for the investigation of the relations of typhus, typhoid and malarial fevers.

The Surgeon-General furnished to Dr. Jones ample facilities for the prosecution of the investigations necessary.

As soon as the necessary preparations could be made Dr. Jones repaired to Andersonville and examined carefully the condition and diseases of the sick and wounded Federal prisoners in the Confederate States military prison hospital and instituted a series of post-mortem examinations, with the design of elucidating the pathology of the prevailing diseases. The weather was intensely hot and the small structure surrounded at the sides with old tent-cloth and covered with boards, erected extemporaneously for the occasion, by the surgeon in charge, in the open space just outside of the limits of the hospital, afforded but indifferent facilities for the pursuit of pathological studies.

In this confined, unventilated room, exposed to the burning autumnal sun, post-mortem examinations of the thoroughly poisoned and rapidly decomposing bodies of those who had died from hospital gangrene, diarrhœa, dysentery and scurvey were not unattended with dis-

comforts and even some danger; and Dr. Jones states that he felt unwilling to do more than to invite the coöperation of the surgeons and assistant surgeons; and consequently he did not feel disposed to criticise harshly the apparent indisposition on the part of the medical officers to engage in such unpleasant, and, to a certain extent, hazardous labors.

After the conclusion of these labors among the Federal prisoners, in the stockade and in the prison hospital, the field of labor was changed to the army of Tennessee, operating in northwestern Georgia, and a series of inquiries were instituted upon hospital gangrene, which was committing extensive ravages upon the wounded in the general hospitals.

These active labors among the sick and wounded of the army of Tennessee did not cease until the middle of November, and Dr. Jones returned to Augusta, Georgia, from Columbus, on the 15th, thus escaping either capture or isolation in a distant part of the State. The elaboration of the results of the investigations into a report to the Surgeon-General of the Confederate army, was immediately commenced and steadily continued throughout the winter, and by the close of February, 1865, the work was so far completed that the greater portion was placed in the hands of his clerks to copy.

We next learn that, obtaining "leave of absence," he went on horseback to Liberty county, on the sea-coast of Georgia, with the design of transferring to a place of safety, (secure from the constant depredations of the Federal forces in and around Savannah, and the liberated blacks), his mother and sister, with their family Upon his return to Augusta, after a journey of over five hundred miles on horseback, (a large portion of which was performed at the imminent peril of his life, through the lines of the enemy and in a country swarming with deserters,) in the early part of

April, 1865, arrangements were made to carry his report in person, on horseback, to Richmond—all railroad communication having been broken up by the desolating march of General Sherman's army through the Carolinas. It is demonstrated that in this march through the heart of Georgia and So. Carolina, the U. States forces occupied a belt of country, from thirty to sixty miles in width, and destroyed the entire railroad system, burning rolling stock, depots and bridges; the line of march being marked by burning barns, cotton gins and presses; the destruction of agricultural implements and of numerous dwellings and even towns; the loss of horses, mules, cows, hogs, and stock of all kinds; and by the utter impoverishment of the inhabitants. An infamous desolation unprecedented in the annals of civilized warfare.

The surrender by Gen. Joseph E. Johnston to Gen. Sherman, on the 26th of April, 1865, of all the Confederate forces east of the Chattahoochee river, necessarily terminated those labors.

Dr. Jones says: "After the disastrous close of a struggle which had enlisted all my sympathies and engaged all my energies, broken in health, fortune and spirits, I desired only peace and rest; and filing away these investigations amongst those of the Confederate sick and wounded, directed my attention wholly to the pressing necessities of the times. I desired especially that the report on the Federal prisoners at Andersonville should never see the light of day, because it was prepared solely for the eye of the Surgeon-General of the Confederate States army; and the frank manner in which all the subjects had been discussed, would only engender angry feelings and place weapons in the hands of the victors; and also, because one of the chief reasons which stimulated the preparation of this report was no longer active, namely, the rectification of such abuses in the conduct of military prison hospitals, as would deprive the United States Government of all excuses in continuing retaliatory measures upon the gallant soldiers of the Confederacy, who had been or who might be so unfortunate as to become prisoners of

war. By a deliberate and well calculated policy, thousands of the Southern troops were confined for months and even years in Northern prisons, without any possibility of exchange; and I felt it to be the duty of all their fellow-soldiers and countrymen to avoid all unnecessary abuses in military prisons and to advocate that line of policy in the treatment of prisoners of war, which would tend to insure the most humane treatment of Confederate prisoners, during their distressing and painful captivity."

"Without any warning, I was suddenly summoned to Washington by the United States authorities and ordered to deliver up "all papers, reports, records, etc., of every kind in my possession pertaining to the Andersonville prison." To a paroled prisoner of war there was neither option nor appeal in the matter."—p. 477-8.

Dr. Jones immediately upon his arrival in Washington, addressed an earnest appeal to the Judge Advocate and military tribunal, in behalf of his suffering fellow-citizens, from which we extract the following:

"In justice to myself, as well as to those most nearly connected with this investigation, I would respectfully call the attention of Col. Chipman, Judge Advocate, U. S. Army, to the fact, that the matter which I now place in his hands, in obedience to the demands of a power from which there is no appeal, was prepared solely for the consideration of the Surgeon-General of the Confederate army, and was designed to promote the cause of humanity and to advance the interests of the medical profession."

"This being granted, I feel assured that the Judge Advocate will appreciate the deep pain which the anticipation gives me that these labors may be diverted from their original mission, and applied to the *prosecution of criminal cases.*"

"The same principle which led me to endeavor to deal humanely and justly to these suffering prisoners, and to make a truthful representation of their condition to the Medical Department of the Confederate army, now actuates me in recording my belief that, as far as my knowledge extends, there was no deliberate or willful design on the part of the Confederate government, to injure the health and destroy the lives of those Federal prisoners.

"On the 21st of May, 1861, it was enacted by the Congress of the Confederate States of America: 'That all prisoners of war taken, whether on land or sea, during the pending hostilities with the United States, shall be transferred by the captors, from time to time, and as often as convenient to the Department of War; and it shall be the duty of the Secretary of War, with the approval of the President, to issue such instructions to the Quartermaster-general and his subordinates, as shall provide for the safe custody and sustenance of prisoners of war; and the rations furnished prisoners of war shall be the same, in quantity and quality, as those furnished to enlisted men in the army of the Confederacy.'

"By act of February 17th, 1864, the Quartermaster-General was relieved of his duty, and the Commissary-General of Subsistence was ordered to provide for the subsistence of prisoners of war.

"According to general order, No. 159, Adjutant and Inspector-General's office, C. S. A., 'Hospitals for prisoners of war are placed on the same footing as other Confederate State hospitals, in all respects, and will be managed accordingly.'

"The Federal prisoners were removed to Southwestern Georgia in the early part of 1864, not only to secure a place of confinement more remote than Richmond and other large towns, from the operations of the United States forces, but also to secure a more abundant and easy supply of food.

"As far as my experience extends, no prisoner, who had been reared upon wheat bread and who was held in captivity for any length of time, could retain his health and escape either scurvy or diarrhœa, if confined to the Confederate ration, issued to the soldiers in the field, of unbolted corn and bacon.

"The large armies of the Confederacy suffered more than once from scurvy; and, as the war progressed, secondary hæmorrhage and hospital gangrene increased to a great extent from the deteriorated condition of the blood, dependent upon the prolonged use of salt meat; and but for the active supplies received from home and from the various benevolent State Institutions, scurvy, diarrhœa, and dysentery would have committed still greater ravages.

"It was believed by the citizens of the Southern States, that the Confederate authorities earnestly desired to ef-

fect a continuous and speedy exchange of prisoners of war in their hands, on the ground that the retention of these soldiers in captivity was a great calamity, not only entailing a heavy expenditure of the scanty means of subsistence, already insufficient to support their suffering, half-starved, half-clad, unpaid armies struggling in the field with overwhelming numbers and embarrassing their imperfect and dilapidated lines of communication; but also as depriving them of the services of a veteran army fully equal to one-third the numbers actually engaged in the field; and the history of subsequent events has shown that the retention in captivity of the Confederate prisoners was one of the efficient causes of the final overthrow of the Confederate government.

"Without at all attempting to justify the abuses which have been alleged against those directly engaged in keeping the Federal prisoners, it is my honest belief that, if the exhausted condition of the Confederate government, with its bankrupt currency, with its retreating and constantly diminishing armies, with the apparent impossibility of filling up vacancies, and of gathering a guard of sufficient strength to allow of the proper enlargement of the military prisons, (and with a country torn and bleeding along all its borders, with its starving women and children and old men fleeing from the desolating march of contending armies, crowding the dilapidated and over-burdened railroad lines, and adding to the distress and consuming the poor charities of those in the interior who were harrassed by the loss of sons and brothers and husbands, and by the fearful visions of starvation and undefined misery,) could be fully realized, much of the suffering of the Federal prisoners would be attributed to causes connected with the distressed condition of the Southern States."

Whether this earnest appeal for his distressed and afflicted countrymen, issued by a prisoner of war, issued to that infamous court which was seeking to crucify the Southern people and degrade their cause in the eyes of the civilized world, and bring their most distinguished men to the halter, (through the trial of the commandant of the military prison at Andersonville,) effected any result may best be determined by the following statement which closes the preface of the report of Dr. Jones:

"In the trial of the Commandant of the Interior of the Confederate States military prison of Andersonville, by the United States military court in the capitol at Washington, only those portions of my report were used in the prosecution by the Judge Advocate, which related to the diseases and sufferings of the Federal prisoners. In the extracts read before the court whilst I occupied the witness stand, *every thing relating to the distressed condition of the Southern States, and to the difficulties under which the medical officers labored in the discharge of their duties, as well as the inspection reports appended, was suppressed.*"

"When upon the witness stand, after hearing the extracts read from my report, I was compelled, by a sense of justice to my suffering fellow-countrymen, to state that I had appeared before that military tribunal in obedience to the demands of a power from which there was no appeal, and that my report contained other matter *relating to the straightened condition of the Confederate government, as well as the Inspection reports, which demonstrated clearly that the medical officers in charge of the sick and wounded Federal prisoners, had made efforts to alleviate their sufferings.*

"These reasons have led me to desire to place all the facts before the public, who have already had access to *certain selected facts.*"—pp. 480-482.

In the body of the report, we find various facts recorded which sustain the earnest appeal of Dr. Jones, in behalf of his suffering fellow-citizens, when he stood alone, a paroled prisoner of war, in the hands of his captors and surrounded with bayonets.

Thus in the first chapter which gives the results of his investigations upon the *medical topography and climate of Camp Sumpter, Andersonville, Ga., and of the country in the immediate vicinity*, Dr. Jones thus states the general conclusions:

"In conclusion, as far as my physical and pathological investigations extended, I was compelled to believe that the diseases which proved so fatal to the Federal prisoners confined at Andersonville, Georgia, were due to causes other than those connected with the soil, water

and climate. The heat of this climate may have promoted the rapid decomposition of the filth which, in violation of all hygienic laws, was allowed to accumulate in the stockade and hospital grounds; and also, in itself, the heat may have proved a cause of debility; but still the fearful mortality could not properly be referred to this condition of climate, or to all the other elements of climate combined.

"No blame can be attached to the Confederate authorities for the collection of Federal prisoners at this elevated and healthy locality, which was more salubrious than one half of the territory of South Carolina, Georgia, Alabama, Mississippi and Louisiana."—p. 500.

In the second chapter, in which a minute description is given of the Confederate States military prison and hospital at Andersonville, we find the following important observation bearing upon the subject now under consideration:

"The duties of the Confederate soldiers, acting as guards, are limited chiefly to the occupation of the boxes or lookouts, ranged around the stockade at regular intervals, and manning the batteries at the angles of the stockade.

"Even judicial matters, pertaining to themselves, as the detection and punishment of such crimes as thefts and murder, are abandoned to the prisoners themselves.

"A startling instance of this occurred in the month of July, when the Federals tried, condemned and *hanged six of their own number*, who had been convicted of stealing and of robbing and murdering their fellow-prisoners.

"They were all hanged upon the same day, upon gallows constructed by the Federal prisoners within the stockade for this especial purpose.

"The condemned were guarded by their fellow-prisoners, armed with sharpened stakes, the points of which had been hardened in the fire, and with large clubs. Thousands of the prisoners gathered around to witness the executions which they had decreed.

"The Confederate authorities did not interfere at all in these proceedings.

"In this collection of men from all parts of the civilized world, every phase of human character was represented—the stronger preyed upon the weaker; and even

the sick, who were unable to defend themselves, were robbed of their scanty suppplies of food and clothing. Dark stories were afloat of men, both sick and well, who were murdered at nights, strangled to death by their comrades, for scanty supplies of clothing or money. I heard a sick and wounded Federal prisoner accuse his nurse, a fellow-prisoner, of the United States army, of having stealthily, during his sleep, inoculated his wounded arm with gangrene, that he might destroy his life and fall heir to his clothing.

"The excuse given for the absence of Confederate guards and police within the enclosure of the stockade, was the insufficiency of men capable of performing military duty. At the time of the establishment, and during the existence, of the military prison, at Andersonville, the Confederate government was sorely pressed on every side; the best States were being overrun and desolated; and, with all the forces that could be gathered from all quarters, the main armies are still largely outnumbered, and are being steadily pressed back, leaving a desolated and ruined country. It is with difficulty that the Confederate government can spare, at the present time of trouble and distress and disaster, between two and three thousand reserves, composed of old men and boys (many of whom are wholly unfit to perform even guard duty), to guard this large number of prisoners, which they have ever been anxious to exchange, and which the Confederate authorities believe to be forced upon their hands by the persistent action of the United States government.

"Similar excuses are given for the crowded condition of the stockade. Thus it is affirmed that the gigantic operations, as well as the sudden and formidable raids of the United States forces, in Virginia, around Richmond, and in Northwestern Georgia, have compelled the sudden and continuous removal of prisoners of war to a place of safety."

"The military operations of the United States have reduced the railroad system of the Confederate States east of the Mississippi, practically to one long and uncertain line. The utmost capacity of the railroads of the Southern Confederacy, which are now in a most deplorable condition, is taxed with the transportation of troops, sick and wounded soldiers, prisoners of war, and provisions for the armies in the field. Notwithstanding the utmost exertions of the Confederate authorities, the

armies in the field, are, as is well known to the Surgeon-General, but poorly fed and clothed, at the best, and oftentimes are upon less than *one quarter rations*. And were it not for supplies received in foraging, and through private sources, it would appear almost impossible that the Confederate army should be able to keep the field with anything like its present numbers. The Surgeon-General is also well acquainted with the fact that, at the present time, large numbers, and it might almost be said entire armies of Confederate troops, are suffering with symptoms of scurvy, while hospital gangrene and pyæmia are making fearful ravages amongst the poorly fed and badly clothed and imperfectly treated wounded of the army of Tennessee, now contending for the possession of Georgia. Again, the Confederate currency has depreciated almost to a nominal value, and large numbers of the citizens are refusing to take it in the purchase of provisions and lumber. In this section of Georgia the means of cutting and hauling lumber are scarce, not only from the original absence of machinery and scarcity of surplus horses and mules, but also from extensive destruction of saw-mills, by the contending armies in the northern part of the State, and from the natural decay of machinery during three years of war, in a country cut off from all intercourse with the surrounding world, and possessing at its best estate but few workshops for the manufacture of machinery. Axes, spades, tools, and implements of all kinds are exceedingly scarce in this section of country; and the State has been so often under the hands of the impressing officers, that it is difficult to obtain teams for hauling lumber."—Pp. 503, 5fi5.

* * * "I visited two thousand sick within the stockade, lying under four long sheds, which had been built at the northern portion for barracks.

"At this time only one medical officer was in attendance, whereas, at least twenty medical officers should have been employed. I was informed that several of the medical officers, appointed to attend the sick in the stockade, were sick, and that the duty was so arduous, and the exhalations from the sick and filth of the prison were so deleterious, that it was impossible for the medical officers to stand the service for any length of time.

"Great difficulty was experienced by the surgeon in charge of the post to induce medical officers and physicians to accept positions in the stockade or hospital, on

account of the absence of many of the facilities for the treatment of the sick, and the great and numerous depressing agencies, and the consequent unsatisfactory results of practice. So distressing was the service, and so great were the obstacles to successful and satisfactory practice amongst these men, whose constitutions had been sapped by the loss of all hope of exchange on the part of their government, and by long confinement upon an unvarying diet, that the more energetic Confederate surgeons and assistant surgeons endeavored to get transfers to other fields of labor, preferring the hardships and exposures of service at the front. It is also to be considered that not only is there a scarcity of physicians in the Confederacy, but it is especially difficult to command the services of competent physicians in this sparsely-settled country. Added to all this, the gigantic military operations in Georgia, attended with the utter destruction of her territory in the rear of the Federal forces, and with the serious wounding of thousands of Confederate troops, have absorbed the sympathies and attention and commanded the abilities of almost every available physician in the State. The hospitals of the army of Tennessee have been in constant motion for months, following the continuous series of disasters and evacuations in Northern Georgia, and are crowded with seriously wounded, suffering in many cases with the most extensive hospital gangrene, and with fatal pyæmia. Every town and village is filled with the sick and wounded of the army of Tennessee; and the privations and sufferings of the Confederate troops, even amongst their own countrymen, are great beyond description, and equal to those of any armies in ancient or modern times. With the whole energies of this people engaged in such a terrible and unequal struggle, it is not singular that medical talent of the highest order should be scarce, and difficult of access and control at the interior posts.

"The very conditions and results of the contest, also, without doubt, tend to excite such prejudices as would disincline medical officers from voluntarily seeking service amongst their captive enemies, who are the representatives of those who are seeking to conquer and desolate their native land."—Pp. 511, 512.

"The haggard, distressed countenances of these miserable, complaining, dejected living skeletons crying for medicine and food, and cursing their government for its

brutality in refusing to exchange prisoners; and the ghastly corpses with their glazed eye-balls, staring up into vacant space, with the flies swarming down their open and grinning mouths and over their ragged clothes, infested with lice, as they lay amongst the sick and dying, formed a picture of helpless, hopeles misery, which it would be impossible to portray by words or by the brush. A feeling of disappointment and even of resentment, on account of the action of the United States government upon the subject of the exchange of prisoners, appeared to be wide-spread, and the apparent hopeless nature of the negotiations for the general exchange of prisoners appeared to be a cause of universal regret and of deep and injurious despondency. I heard some of the prisoners go so far as to exonerate the Confederate government from any charge of intentionlly subjecting them to protracted confinement, with its necessary and unavoidable suffering, in a country cut off from all intercourse with foreign nations, and sorely pressed on all sides; whilst, on the other hand, they charged their prolonged captivity upon their own government, which was attempting to make the negro equal to the white man." Page 516.

To show that he had not misrepresented the sentiments of these prisoners, Dr. Jones quotes a series of resolutions passed, and published in the Savannah papers, by these Andersonville prisoners.—Pp. 516, 517, 518.

At the close of this chapter Dr. Jones records the following important fact showing the healthiness of this locality:

"It is worthy of note, in connection with the preceding description of the condition of the prisoners within the stockade, that several hundred of the Federal prisoners had been released on parole, and filled all the subordinate offices as clerks, carpenters, cooks, bakers, ration-dividers, nurses, ward-masters, stewards, and druggists. These men, who had the liberty of the entire post, were well clothed and presented a stout, healthy appearance, and, as a general rule, appeared to be in better circumstances and to enjoy much more robust health than the Confederate troops guarding the prison.

"To these paroled prisoners was confided not only

the preparation and cooking of the food but also the distribution of the rations to the sick and well within the stockade of the hospital."—P. 518.

In the fourth chapter, in which a consolidated report is published, giving the classified diseases and deaths amongst the prisoners for each month, Dr. Jones proposes certain measures of relief for the prisoners, and prefaces his recommendation with the following observations:

"Surrounded by these depressing agencies, the postponement of the general exchange of prisoners and the constantly receding hopes of deliverance through the action of their own government depressed the already desponding spirits, and destroyed those mental and moral energies so necessary for a successful struggle against disease and its active agents.

"Home sickness and disappointment, mental depression and distress, attending the daily longings for an apparently hopeless release, appeared to be as potent agencies in the destruction of these prisoners as the physical causes of actual disease.

"This gigantic mass of human suffering calls loudly for relief, not only for its own sake and the cause of humanity, but also on account of the brave Confederate soldiers now in the hands of the Federal government.

"In presuming to step aside, for one moment, from the line of labor indicated in the Surgeon-General's order, and to volunteer suggestions with reference to the amelioration of suffering and the rectification of abuses, I am well aware that the same principles of enlarged humanity which the Surgeon-General has ever displayed in the management of the medical department in its varied and difficult relations, as well to the Federal Prisoners as to the Confederate armies, actuates the Chief Executive as well as all the high officers of the government, charged with the general direction of such matters; and that no effort has been spared by the Confederate authorities, through Col. Robert Ould, Agent of Exchange, to effect a complete and speedy exchange of Federal prisoners in their hands.

"As long as the Confederate government is compelled to hold these prisoners as hostages for the safe return and exchange of the captive men of its own armies, it is

difficult to devise measures for the mitigation of much of the suffering of such an immense army of prisoners, (equal at least to one-fourth of the Confederate forces actually engaged in the field, east of the Mississippi,) in a purely agricultural and sparsely settled country, with imperfect lines of communication, with but few manufactories, without commerce, cut off from all communication with the surrounding world, deprived of even the necessary medicines which have been declared by its enemies "contraband of war," with torn and bleeding borders, with progressively diminishing powers of subsistence, with its entire fighting population in arms, and yet being steadily driven back and overpowered by the hosts of the enemy, with a constant driving in of the population, from the constantly contracting borders, upon the overcrowded and distressed centre, and with a corresponding increase of travel upon the dilapidated railroads, already taxed far beyond their capacity, with the transportation of troops, the munitions of war and the sick and wounded."

"In Georgia, especially, the very State in which these prisoners are confined, is the pressure of the Confederate disaster felt with daily increasing force. The disastrous campaign in northern Georgia has been attended with the desolation of the fairest portions of the State.

"Thousands of families from the devastated regions, and from the towns and villages, from Chattanooga to Atlanta and beyond, have fled to the regions considered more safe from invasion, and are occupying old cars, depots, sheds and tents, along the entire railroad system of Georgia.

"Thousands of old men, delicate women and defenseless children, have not only lost all their earthly possessions, but are without a roof to cover their heads and are dependent for their daily bread upon the charities of the State government. The hospitals attached to the army of Tennessee are in a constant state of motion, and the poorly fed and imperfectly treated wounded are suffering with the worst forms of hospital gangrene and pyæmia. Every available building, including churches and colleges and school-houses, suitable for hospital purposes, in all the towns and villages, are crowded with the sick and wounded, and Georgia may with truth be said to be *one vast hospital.*

"It is therefore with a sincere appreciation of the great

difficulties of the situation that I respectfully present for the consideration of the Surgeon-General the conditions which I believe to be essential to the relief of these suffering prisoners."—pp. 533, 529.

This chapter also contains valuable inspection and sanitary reports, from the chief surgeon of the post, Isaiah H. White and others, showing the efforts made by the Confederate surgeons for the relief of the Federal prisoners. See pp. 535, 552.

The remaining chapters contain minute and critical reports upon the diseases of the Confederate guard at Andersonville; and upon the diseases of the Federal prisoners at Andersonville, which were referred to climatic causes, etc., viz: exposure, heat, sun-stroke, salt diet, the action of specific poisons, supposed to arise from crowding and foul exhalations, typhoid fever, etc.

It would be impossible in the necessarily confined limits of this review, to give any abstract of these various chapters, and we must content ourselves with a record of the conclusions deduced by Dr. Joseph Jones, from his investigations at Andersonville, as stated in the ninth and last chapter of his report.

"I. The great mortality amongst the Federal prisoners confined in the military prison at Andersonville was not referable to climatic causes, or to the nature of the soil and waters.—p. 642.

"II. Not only were malarial fevers of infrequent occurrence amongst the Federal prisoners, but typhoid fever was rare, and typhus fever was unknown.—pp. 642-644.

"III. The chief causes of death amongst the Federal prisoners at Andersonville was scurvy and its results, and bowel affections, chronic and acute diarrhœa and dysentery.

"Notwithstanding the exposure of these prisoners, without shelter, the diseases referable more directly to this cause, as pneumonia, bronchitis, catarrh and rheumatism, did not prevail to a greater extent, amongst the Federal prisoners than amongst the Confederate soldiers in the field, who were in like manner exposed to the cold

of winter and heat of summer, without tents and without any other shelter than that which they were able to construct with their hands.—p. 644.

"IV. The effects of salt meat and of farinaceous food without fresh vegetables, were manifested in the great prevalence of scurvy.

"The scorbutic condition thus induced, modified the course of every disease, poisoned every wound, however slight, and lay at the foundation of those obstinate and exhausting diarrhœas and dysenteries which swept off thousands of these unfortunate men.

"*The Federal prisoners received the same ration in kind, qaality and amount, issued to the Confederate soldiers in the field.* These rations were insufficient, and without that variety of fresh meat and vegetables which would ward off scurvy from soldiers, as well as prisonérs.

"As far as my experience extended, no body of troops could be confined exclusively to the Confederate ration, without suffering materially in their health, and without manifesting symptoms of scurvy. The Confederate ration grew worse and worse as the war progressed, and as portion after portion of the most fertile regions of the Confederate States was overrun and devastated by the Federal armies. In the straightened condition of the Confederate States, the support of an army of fifty thousand prisoners, *forced upon their hands by a relentless policy*, was a great and distressing burden, which consumed their scant resources and exhausted their over-taxed energies. It was the belief of the army, as well as of the people, that the Confederate government not only earnestly desired the exchange of all prisoners of war in their hands, but also that the Confederate authorities charged with the exchange of prisoners, had used every effort in their power to effect an exchange of all prisoners in their hands, and to establish definite rules by which all prisoners of war might be continuously exchanged as soon as possible after capture. Whatever the feelings of resentment on the part of the Confederates may have been against those who were invading and desolating their native land, the desire for the speedy exchange and return of the great army of veterans held captive in the Northern prisons, was earnest and universal; and this desire for speedy and continuous exchange on the part of the government, as well as on the part of the people, sprang not merely from motives of compassion for their

unfortunate kindred and fellow-soldiers, but also from the dictates of that policy which would exchange on the part of a weak and struggling people, a large army of prisoners (consumers and non-combatants requiring an army for their guard) for an army of their veterans. *Apart from the real facts of the case, it is impossible to conceive that any government in the distressed and struggling condition of the Confederate States, could deliberately advocate any policy which would deprive it of a large army of veterans and compel it to waste its scant supplies, (already insufficient for the support of its struggling and retreating army,) upon an immense number of prisoners. And as the result has shown, the destruction of the Confederate government was accomplished, as much by the persistent retention in captivity of the Confederate soldisrs, as by the emancipation and arming of the slaves.*—p. 645.

"V. From the sameness of the food and from the action of the poisonous gases in the densely crowded and filthy stockade and hospital, the blood was altered in its constitution, even before the manifestation of actual disease.

"VI. The impoverished condition of the blood, which led to serious effusions within the ventricles of the brain, and around the brain and spinal cord, and into the pericardial and abdominal cavities, was gradually induced by the action of several causes, but chiefly by the character of the food.—pp. 646, 649.

"VII. Scurvy, arising from sameness of food and imperfect nutrition caused, either directly or indirectly, nine-tenths of the deaths amongst the Federal prisoners at Andersonville.

"Not only were the deaths referred to unknown causes, to apoplexy, to anasarca and to debility, traceable to scurvy and its effects; and not only was the mortality in small-pox, pneumonia and typhoid fever, and in all acute diseases, more than doubled by the scorbutic taint, but even the all but universal and deadly bowel affections arose from the same causes, and derived their fatal character from the same condition which produced the scurvy.

"In truth these men at Andersonville were in the condition of a crew at sea, confined upon a foul ship, upon salt meat and unvarying food and without fresh vegetables. Not only so, but these unfortunate prisoners were like men forcibly confined and crowded upon a ship

tossed about on a stormy ocean, without a rudder, without a compass, without a guiding star and without any apparent boundary or end to their voyage; and they reflected, in their steadily increasing miseries, the distressed condition and waning fortunes of a devastated and bleeding country which was compelled, in justice to her own unfortunate sons, to hold these men in this most distressing captivity."—pp. 649, 650.

"VIII. The bowel affections, which were classed under the heads of diarrhœa and dysentery, were due to several causes, but chiefly to the same causes which induced the scurvy; and these diseases were accompanied with profound lesions of the intestinal mucous membrane located more especially in the ileum, colon and rectum; and these lesions were characterized chiefly by thickening and softening of the mucous membrane, congestion and enlargement of the villi, intense congestion of the tubular glands, attended with hæmorrhage, intense congestions and ulceration of the lower portion of the ileum and of the colon and rectum.—p. 650.

"IX. Drugs exercised but little influence over the progress and fatal termination of chronic diarrhœa and dysentery in the military prison and hospital at Andersonville, chiefly because the proper form of nourishment (milk, rice, vegetables, anti-scorbutics and nourishing animal and vegetable soups) was not issued, and could not be procured in sufficient quantities for the sick prisoners. p. 650.

"X. The fact that hospital gangrene appeared in the stockade first, and originated spontaneously without any previous contagion, and occurred sporadically all over the stockade and prison hospital, was proof positive that this disease will arise whenever the conditions of crowding, filth, foul air and bad diet are present.—p. 651.

"XI. A scorbutic condition of the system appeared to favor the origin of foul ulcers, which frequently took on true hospital gangrene.—p. 651, 653.

"XII. Gangrenous spots, followed by rapid destruction of tissue, appeared in some cases in which there had been no previous or existing wound or abrasion; and without such well-established facts, it might be assumed that the disease was propagated from one patient to another in every case, either by exhalations from the gangrenous surface, or by direct contact.

"XIII. The unfortunate accidents which followed vac-

cination in certain cases, were referable chiefly to the scorbutic state of the patients and the tendency of all abrasions and wounds, however slight, to assume gangrenous ulceration.

"The charge that the confederate surgeons willfully introduced poisonous vaccine matter into the arms of these prisoners, was as malicious as it was false. In every collection of officers and men it may be possible to find some unprincipled individual; and I cannot say that the Confederate officers of Andersonville formed an exception to the general frailties of mankind; but this I do know, by personal observation, that they deplored the distressing fate of these unfortunate victims to a relentless policy, and earnestly desired to do their duty in the cause of suffering humanity.—p. 659.

"XIV. In the depraved condition of these prisoners, and in the foul atmosphere of the military prison hospital of Andersonville, amputation did not arrest hospital gangrene; the disease almost invariably returned."—p. 655.

We gather from this report that: First, the Confederate States government was opposed to the retention in captivity of prisoners of war, and used every exertion to effect a speedy and continuous exchange of prisoners.

Second. The retention in captivity of veteran Confederate soldiers (50,000) was one of the most potent of all causes in the final and complete overthrow of the Confederate government.

Third. Much of the suffering of the prisoners at Andersonville, was due to the distressed and devastated condition of the Southern States, and was chiefly dependent upon causes, over which the Confederate government had but little control. The responsibility of the sufferings of the Federal prisoners confined in Southern prisons, rests mainly, if not entirely, upon the United States government.

That the Confederate military officers in charge of the Andersonville prisoners are justly censurable, every candid mind will admit; for no one can doubt or deny, that

the sufferings and deaths of these prisoners could have been materially reduced by the erection of sun and weather sheds, by an adequate system of "policing" of the grounds, by the digging of a sufficient number of wells to furnish a full supply of clean water and by an efficient system of drainage. The prisoners themselves could easily have accomplished all that was necessary in these respects. It is still evident, however, that the chief causes of mortality arose from circumstances which the Confederate government was powerless to control; the insufficient and unhealthy ration, the inability to procure fresh meat, vegetables and anti-scorbutics, and a proper supply of those medicines which the United States government had made "contraband of war." Above all other agencies, however, which made Andersonville a graveyard, and which sent thousands of these unhappy men, after sufferings indescribable, into untimely graves was the deliberate policy of the United States government to sacrifice hecatombs of her soldiers in captivity, rather than return to the Confederate army 50,000 of its brave Confederate veterans incarcerated in Federal prisons; in prisons, where surrounded by all the luxuries and necessities of life, thousands of these prisoners suffered hunger and thirst and cold and nakedness, jeered at and maltreated by those who possessed the means of supplying every comfort allowed to prisoners by the civilized governments of the world.

Dr. Jones very truthfully and very fully admits all the errors on the part of those with whose cause he was so fully identified, and the writer, who was also sent to Andersonville on a similar mission in 1864, bears cheerful testimony to the accuracy and fidelity of Dr. Jones' reports.

These able reports can not possibly be too widely known. They must be accepted *as history*, in regard to

the terrible events of which they treat, for their truth is self-evident and undeniable.

A review of other portions of this valuable volume will be given in future.

PRACTICAL MANUAL ON THE TREATMENT OF CLUB-FOOT. By LEWIS A. SAYRE, M.D., Professor of Orthopedic Surgery, Bellevue Hospital Medical College, etc. New York. D. Appleton & Co. 1869.

This recently published manual is a most excellent contribution to orthopedic surgery. It is concise and yet comprehensive, embodying much thought and experience in brief space. These are unquestioned merits and particularly valuable in the insane tendency of the times to mere bookmaking. Another merit which is to be accorded to Dr. Sayre is that he does not consume the time of the reader by compelling him to study obsolete théories, or to compare the author's views with those of contemporaneous writers. He gives his own convictions, reasons, mode of operation and treatment, with the results, leaving the reader to go elsewhere for information in regard to the teachings of others. The reader, therefore, in purchasing this manual is not purchasing many of the obsolete or current views to be found in many of the authorities of the library. There is very little compilation in this manual, and whatever is given is given wisely and judiciously. Dr. Sayre is unjust, where he ascribes to the profession the general error of tenotomy for the cure of talipes. That the uninformed do thus err is undeniable, but it seems to be unjust to regard this error as general. This manual is small in bulk but large in its amount of contained information. All physicians should purchase it.

MISCELLANEOUS.

"Non Omnes Eadem Mirantur Ament Que."

ANALYSIS OF THE LIFE OF DR. FRANKLIN BACHE.—Dr. Franklin Bache, the great grandson of that great philosopher and philanthropist Benjamin Franklin, was born in Philadelphia, in October, 1792, in the house owned and built by Dr. Franklin. His early life was passed in the city, though many of his summer months were spent on the banks of the Delaware, at the residence of his grandfather Richard Bache.

The sports of boyhood, in the pure air of the country, contributed without doubt to give that healthful vigor to his constitution which enabled it to support the wearing effect of that sedentary labor which occupied so large a portion of his subsequent life.

He was assisted in his preparation for a literary career by the learned Samuel B. Wlly, D.D., and only left his academy to enter the University of Pennsylvania, where he went through a regular course of study in the Department of Arts, and graduated as Bachelor in 1810, being then just eighteen years old. Determining to adopt the medical profession, he then became the student of Drs. Benjamin Rush and James Rush, successively. He graduated as Doctor of Medicine in 1814. He immediately offered his services to his government, then at war with Great Britain, and was attached to the 32d regiment of infantry. He served with this regiment for a considerable time on the frontier, and after the close of the war remained in the army as surgeon to the 2d regiment of infantry until 1816.

The first years of his professional life, after returning to Philadelphia, were marked by many struggles, and his income was very inadequate to his wants. This was in some measure due to his having been attracted specially to the science of chemistry. To this he devoted much of his time, mastering its details and principles, and particularly attaching himself to the doctrine of chemical equivalents, which he had not only adopted unreservedly himself, but was the means of making universally acceptable. He published, in 1819, a treatise on chemistry which, though possessing much merit, did not meet

with the success which the young and unknown author deserved. He would never agree to have a second edition published, though often urged by his friends to do so. It was the custom at this time for physicians to give to their office students the advantage of hearing lectures on various subjects, and, in pursuance of this idea, Dr. T. Hewson engaged Dr. Bache, in 1821, to deliver at his office a course of lectures on chemistry. He first lectured in public in 1826, when he was appointed to the chair of chemistry in the Franklin Institute. This he held until 1832, when he resigned to accept a position in the School of Pharmacy, For five or six years he also taught chemistry in "The Association for Medical Instruction."

In lecturing he was slow and deliberate, choosing his words with great care, and indulging now and then in the dry humor so natural to him, and occasionally relieving the details of his subject by a ludicrous though illustrative anecdote. He was very successful in his experiments, and always made his preliminary preparations with great care. To the class he was most acceptable, and they felt that their teacher lost his own personality in the interests of the great science which he taught.

He filled the places of physician to the State prison and of the Eastern penitentiary, with credit to himself and to the satisfaction of all concerned. It was owing to his judicious care and great firmness of character that during the epidemic of cholera, in 1832, the State prison escaped with only one fatal case. His connection with this institution led him to think deeply upon the subject of prison systems, and two letters which he wrote for publication at this time show the result of his reflections.

Dr. Bache was one of the earliest members of the Kappa Lambda Society, and in 1828 one of its vice-presidents. In six years he was intimately connected with the medical journal published by that society; and much of the success of the journal was due to the sagacity and prudence of Dr. Bache. He was most agreeably associated in the business with Drs. La Roche, Hodge, Wood, Meigs, and Coates.

No society had so happy an influence on the life of Dr. Bache as the College of Physicians. He was regular in attendance, much interested in the proceedings, judicious in his advice and admonitions, open to conviction, and ready to yield when convinced.

It was this society which appointed him one of a committee to revise the pharmacopœia. The pharmacopœia, compiled in 1820, by order of a convention which met in Washington, was in many respects incorrect and defective, and was far from being generelly acceptable to the profession. In 1829 Drs. Hewson, Bache, and Wood, of Philadelphia, were appointed by the College of Physicians of that city to revise the work.

It is impossible to relate here all the interesting details of the progress of this work. For more than thirty years Dr. Bache devoted a large portion of his time and mental labor to its preparation and improvement, and was finally one of the most active in establishing it as the United States standard of pharmacology. Though strongly pressed by the public demand, and anxious to put forth the new edition as soon as possible, the committee were unable to publish it before the middle of 1863. For the time, thought, and labor expended by Dr. Bache he did not receive any other recompense than the consciousness of duty well performed, public benefit conferred, and a reputation enhanced, with all who knew and could appreciate his efforts and sacrifices. One of the most important incidents of his life was his joint authorship of the United States Dispensatory. This work was prepared as a commentary on the Pharmacopœia, giving detailed accounts of the medicines it recognized and explaining and enforcing all its processes. The work was greatly successful, and he was much relieved, pecuniarily, by the assured income it brought him. From this time to the day of his death he was "abundant in labors," and led a life of great industry and usefulness. No man was more generally trusted and beloved by all who knew him. His moral character was as deserving of admiration as his intellectual; his love of truth, his strict sense of justice, his candor, and his modesty, made him much valued by his friends. To the last he retained all of his strong intellectual traits, giving constant evidence of his clear and correct views on medical subjects, and indulging in the dry and genial humor which characterized him. He died at the age of 72, of influenza—then prevailing. In 1818 he matried Aglæ, daughter of Jean Dubadie, a French merchant, then living in Philadelphia. Having the misfortune to lose his wife in 1835, he remained faithful to her memory, and was still a widower at the time of his decease. She left six children, of whom five survive.

Besides the Pharmacopœia and the Dispensatory, Dr. Bache wrote and published in the American Journal of Pharmacy the following articles:

1. "An address to the graduates of the Philadelphia College of Pharmacy." 2. Remarks on the British and United States pharmacopœias." 3. "On the advantages of a single pharmacopœia for the British Empire." In the Quarterly Medical Journal, published by the Kappa Lambda Society, he pulished a "Paper on acupuncturation, and a review of Dr. Thomas Thompson's first prinples of chemistry." A review of "Prout on Diabetes, etc." A case of obstructed bowels (of remarkable interest). Report of selected cases. Review of Christison on poisons, and a review of Dr. Southwood Smith on fevers. The writer is indebted to Dr. George B. Wood, of Philadelphia, for most of the facts in this life.

How to Restrain Hæmorrhage in Amputation of the Breast. (By Prof. Frank H. Hamilton.) In describing a case of amputation of the breast, Professor Hamilton resorted to a new device for preventing a great a loss of blood:

In order to restrain the bleeding until the vessels could be secured by ligatures, I adopted the following procedure, which I had never used before nor seen suggested by others: After the patient was fully under the influence of ether, I encircled the chest with two long strips of adhesive plaster, each of which was about two inches in width and long enough to surround the chest completely and allow the ends to overlap each other. They were drawn tight, but not so tight as to interfere with respiration. One of them passed under the breast at a point about one inch from the line I had indicated to myself as the probable line of incision; the other passed above the breast, between it and the axilla, at about the same distance from the projected upper line of incision, The two strips of plaster forming an ellipse completely inclosing the breast. Within this ellipse the incisions were made, and it was apparent that by the pressure the bleeding from all the tegumentary and superficial muscular vessels was completely, or almost completely controlled, so that the amount of blood lost in the operation was comparatively trifling.

On closing the wound I did not remove these strips. This was an error which on another occasion I should

avoid, since they prevented the complete and accurate coaptation of the tegumentary flaps, and allowed the margins of the wound to become everted.

The advantages of this procedure are now so apparent to me that I wonder that it has never suggested itself to me before; and I cannot but think that ingenious surgeons must have tried it. It ought to be added that it is only the temporary control of a part of the bleeding which is sought to be obtained by this method, in order that the surgeon may proceed with more assurance to the completion of his operation, and that he may not be obliged to arrest his incisions for the purpose of tying vessels. Yet it is quite certain that a large proportion of these smaller vessels, if only compressed temporarily, will not bleed after the pressure is removed; so that not only will the immediate loss of blood be less, and the surface of the wound be more open to the eye of the surgeon, but few vessels will have to be secured finally by the ligature, and a more prompt union may be anticipated.—*St. Louis Med. Jour.*

Salivary Calculus from Wharton's Duct. (By John L. Firestone, M.D., Salem, Ohio.) A farmer, æt. 50, called on me with a tumor in the floor of the mouth, under the right side of the tongue, which has been noticed a "good while," as it interfered somewhat with mastication, though not with deglutition.

On examination a hard tumor was felt in a place designated, apparently about the size of a hulled walnut, and on the floor of the mouth Wharton's duct was seen unusually open. A probe was easily introduced and immediately below the surface struck a hard, rough calculus. Introduced a narrow-bladed bistoury and opened a sac parallel with the tongue, and with the scoop end of a director, I removed a calculus 14 lines long, 8 broad, and 6 deep, and 1½ drachms in weight. It was yellowish-white; oval, flattened sides; and composed of "phosphate and carbonate of lime, held together by animal matter."

This salivary calculus is probably of unusual size. Rokitansky says, referring to these formations, that they vary in size "from a millet-seed or a pea, to even that of a hazel-nut."—[*Detroit Review.*

A Specimen of Western Babies.—Detroit has entered the lists in competition with her sister cities and villages

of the West, and promises to be not far behind any of them in giving to the world infants of Brobdignagian proportions.

On the 19th of February, Mrs. James Woolley, 43 Sibley street, was delivered of a well formed male infant, 24½ inches long, weighing 16 pounds *in puris naturalibus*. The forceps were brought into requisition in effecting the delivery, the mother being rather under-sized, although a well proportioned woman. Her weight, in fact, after parturition, is stated at 92 lbs.—[*Detroit Review*.

Reproduction of the Brain.—Some very remarkable experiments have recently been made by Voit, in regard to the removal of the hemispheres of the brain of pigeons, and communicated to the Academy of Sciences in Munich. After the operation, the pigeons fell into a torpid condition, resembling sleep; but after a longer or shorter time, generally lasting, however, for weeks, they became lively again, opened their eyes and flew about. Curiously enough, however, they took no notice of the food placed before them, and had to be fed by hand. They seemed to have lost all feeling of fear of their enemies. The pigeons that had been operated upon on being killed, showed that the space previously occupied by the cerebral hemisphere had become filled, either with a fibrous exudation or with a serous liquid; or else that the cerebellum had moved forward, and the roof of the skull had sunken in. A young pigeon after the operation gradually returned almost to its normal condition, but would not partake of any food of its own accord. After five months' time, in the cavity of the skull previously occupied by the brain, there appeared a white mass, having perfectly the appearance and the consistency of the white cerebral matter, and which passed uninterruptedly and imperceptibly into the crura, which had not been removed. The mass presented the appearance of two hemispheres, each of them with the cavity filled with fluid, and with a septum between them. The whole consisted of perfect, double, contorted, primitive, nervous fibres, and unmistakably contained ganglionic cells.—*Med. & Surg. Rep.*

Meeting and Organization of Medical Journalists.—On Wednesday evening, May 5th, at 8 o'clock, a meeting of the Society of Medical Journalists was held in the office, No. 1 Carondelet, New Orleans. The result of this

assembly of prominent physicians was the formation of a permanent society, the election of N. S. Davis, M.D., President, and W. S. Mitchell, M.D., Permanent Secretary. The address of the secretary is lock box 890, New Orleans. We append a report of the proceedings:

Pursuant to adjournment from the preliminary meeting Tuesday, the meeling of Medical Journalists was called to order at 8 o'clock P. M., by Dr. N. S. Davis, of the Chicago Medical Examiner.

The committee on organization, through their chairman, Dr. Theophilus Parvin, of the Western Journal of Medicine, then presented the following preamble and plan of organization, which was unanimously adopted:

The editors of medical journals in the United States desiring to cultivate professional courtesies, to facilitate the conduct and general management of our journals, to promote their interests, their usefulness, and make them a still greater power for professional an d popular good, and especially to advance the interests of medicine, hereby unite together under the following

ARTICLES OF ASSOCIATION:

Name.—The Association of American Medical Editors.

Purposes.—The cultivation of friendly relations, mutual assistance, community of effort and means, where practicable in a system of receiving foreign exchanges, and of sending our own journals abroad; in urging, with hearty concert, improvements in the present system of medical education, and a higher standard of preliminary education of those who desire to enter upon the study of medicine; the collection of vital statistics; the collecting of the names of all the regular physicians in the United States, age, place, and date of graduation, if a graduate; also, the same in reference to graduation at literary institutions, if such graduation has taken place.

Meetings.—These shall be held, commencing at 10 A. M. on the day preceding, and at the place of, the annual meeting of the American Medical Association.

Officers.—President, Vice-President, Permanent Secretary and Secretary.

The President, Vice-President, and Secretary shall be elected annually, and shall serve at the meeting of the succeeding year.

Committees shall be appointed where necessary for the carrying out of any of the special purposes of the Association.

These resolutions have been signed by the following delegates: Dr. N. S. Davis, Chicago Medical Examiner; Dr. James M. Holloway, Richmond and Louisville Medical Journal; Dr. Wm. M. McPheeters St. Louis Medical and Surgical Reporter; Dr. W. R. Bowling, Nashville Journal of Medicine; J. Berien Lindsley, Nashville Journal of Medicine; Dr. Greensville Dowell, Galveston Medical Journal; Dr. Samuel Logan, New Orleans Journal of Medicine; Dr. S. S. Herrick, New Orleans Journal of Medicine; Dr. E. W. Jenks and Dr. George D. Andrews, Detroit Review of Medicine and Pharmacy; Dr. W. S. Mitchell, New Orleans Journal of Medicine, and Dr. S. M. Bemiss, New Orleans Journal of Medicine. The officers, as follows, were unanimously elected:

Dr. N. S. Davis, President; Dr. W. M. McPheeters, Vice-President; Dr. W. S. Mitchell, Permanent Secretary, and Dr. J. Berien Lindsley, Secretary.

The following resolutions were unanimously adopted:

That a committee on foreign exchanges be appointed, to consist of Dr. Parvin, as chairman, and the Permanent Secretary.

That the Permanent Secretary be instructed to correspond with such regular medical journals of the United States as are now represented, informing them of the objects of the organization, and inqiting their coöperation.

That a committee, consisting of Drs. Bowling, Dowell, and Andrews, be appointed on the Registry of Physicians.

That Dr. Holloway be appointed a Committee on Revision.

That the President deliver at the next meeting an address on the history, progress, etc., of medical journalism in this country, and that the members of the Association furnish to him such material and information as they may be able to obtain.

That besides the members already signing the constitution, all physicians connected with regular medical journals, be considered members upon signifying in writing to the Permanent Secretary their willing to subscribe to the foregoing articles of agreement, until opportunity be afforded them of signing said articles.

That the President be requested to announce to the American Medical Association the formation ond objects of this Association.

That these minutes be furnished to the secular papers, with the request that they becopied.

That Dr. Holloway be appointed a committee to arrange a general plan of communication between medical journals.

That the Committee on Exchanges be instructed to arrange some general plan for the establishment of agencies in all the principal cities.

There being no further business the meeting adjourned.

NATIONAL CONVENTION FOR THE REVISION OF THE PHARMACOPEIA OF THE UNITED STATES.—At the meeting of the Convention held in May, 1860, the following resolutions were adopted:

1. The President of this Convention shall, on the first day of May, 1869, issue a notice requesting the several incorporated State Medical Societies, the incorporated Medical Colleges, the incorporated Colleges of Physicians and Surgeons, and the incorporated Colleges of Pharmacy throughout the United States, to elect a number of delegates, not exceeding three, to attend a general Convention, to be held at Washington on the first Wednesday in May, 1870.

2. The several incorporated bodies, thus addressed, shall also be requested by the President to submit the Pharmacopeia to a careful revision, and to transmit the result of their labors, through their delegates or through any other channel, to the next Convention.

3. The several medical and pharmaceutical bodies shall be further requested to transmit to the President of this Convention the names and residences of their respective delegates, as soon as they shall have been appointed, a list of whom shall be published, under his authority, for the information of the medical public, in the newspapers and medical journals, in the month of March, 1870.

In compliance with the above resolutions, the President of the Convention announced that meeting would be held in Washington, D. C., on the first Tuesday in May, 1870, and requets that the several incorporated bodies shall, after a revision of the U. S. Pharmacopeia, send the results of their labors to the Convention; and further requests that they transmit to the President the names and residences of their several delegates, so soon as elected, that the list may be published.

GEORGE B. WOOD,
President of the Convention of 1860.

OPINIONS OF THE PRESS.—THE RIGHT OF CRITICISM VINDICATED AND BLACKGUARDISM SEVERELY REBUKED.—DR. T. S. BELL WEIGHED IN THE BALANCE.—Some men appear to be so constituted that they cannot correct the errors, refute the arguments, or point out the misrepresentations of others without directly attacking their personal characters. Such men are continually acting as though the most violent denunciation constituted the most conclusive argument, and the blackening of the character the most complete correction of all misrepresentations. They are practically incapable of discussing any subject, either on the platform or through the press, without involving themselves in personalties altogether foreign to the subject itself.

These thoughts have been suggested chiefly by an article in a recent number of the Nashville Medical and Surgical Journal, by T. S. Bell, M.D., of Louisville, concerning E. S. Gaillard, M.D., of the same city. From this article it would appear that Dr. Bell had at some previous time delivered and published a lecture on a subject relating to antiquarian researches. Dr. Gaillard, in his capacity of editor of the Richmond and Louisville Medical Journal, reviewed this lecture, pointing out what he supposed to be defects in its style and logic.

Ostensibly for this, Dr. Bell writes twenty pages of the most violent personal abuse of Dr. Gaillard; and what is perhaps even less excusable, the editor of the Nashville Medical Journal permits the article to appear in his columns. We say less excusable, because the editor, as a third party, is supposed to be free from the personal feeling that actuates the writer, and consequently capable of seeing the injurious bearing of such papers, both on the writer and on the profession at large. If he had returned the manuscript to Dr. Bell, with the friendly advice to burn it up, or reduce it to a simple dignified correction of whatever errors or misstatements he supposed to have been made in the Richmond and Louisville Medical Journal, how much of censure and scandal would have been saved to all parties.

Viewed in the light simply of a reply to the review of his lecture in the Richmond and Louisville Medical Journal, the article of Dr. Bell, in the Nashville Journal, is in the highest degree censurable. If the editor of a medical journal cannot exercise the right of noticing the publications of the day, and in such notices pointing out

their defects or errors, or both, without calling out in return such a torrent of personal detraction as we find in the article of Dr. Bell, then is the position of a medical editor a very undesirable one indeed. But the truth seems to be, that the review in the Richmond and Louisville Journal only served Dr. Bell for a pretext, the real cause of his article being a bitter feud which had existed many months between Drs. Bell, Gaillard, and others connected with the two medical colleges in Louisville.—[*Chicago Medical Examiner.*

Journalistic Discourtesy.—In the April number of the Richmond and Louisville Medical Journal, there appeared a review of "The Prehistoric Ages of Scandinavia and the Lacustrine Dwellers in Switzerland. By T. S. Bell, M.D., of Louisville, Ky." The review, written by the the editor of the Journal, Dr. Gaillard, although somewhat severe, and evincing a tendency perhaps to hypercriticism on minute points, was in no way discourteous or unjust. Nor could there be discerned, on reading this review, any personal *animus* against the author.

The June number of the Nashville Medical Journal contains a reply to this review, by Dr. Bell, and published over his own signature. This reply so abounds in virulent abuse and contemptible petty spite, that we can only wonder how it was ever admitted into the columns of a respectable journal. Had Dr. Bell contented himself with replying to the review, we could make no objection, provided, of course, the reviewer had misrepresented the author in any way; but he (Dr. Bell) has very little to say of the review, and devotes nearly the whole of a twenty-page article to a scurrilous attack on Dr. Gaillard's professional, public, and literary career. In so doing, he has forgotten his position as a gentleman, and has disgraced both himself and the profession of which he is a member. The journal also which admitted this personal abuse into its columns has, we think, committed a serious error, which should receive the out-spoken condemnation of all who desire to preserve the dignity and purity of our periodical literature.—[*N. Y. Med. Jour.*

Reviews.—Some months ago, Dr. Gaillard made a lengthy, and perhaps severe critique of a lecture by Dr. T. S. Bell, in his Journal. That critique was certainly courteous, whether necessary or not we need not say. Dr. Bell replies, in the Nashville Journal, at great length, and in a

spirit aud style that is certaiuly outside the pale of respectable journalism, and we are astonished that Dr. Bowling should have admitted it to his pages, and sorry that Dr. Gaillard should see fit to dignify it with an elaborate reply.—[*Cin. Lan. & Observer.*

Unmannerly.—We regret to see such an exhibition of petty spite and ill-manners as is made in the June number of the Nashville Jour. of Med. and Surg., by T. S. Bell, M.D., Professor of the Science and Practice of Medicine in the University of Louisville, Ky., in an attack on Dr. E. S. Gaillard, editor of the Richmond and Louisville Medical Journal.

If the University of Louisville respects its own reputation it will take some action to bring to a sense of propriety one of its faculty who has so far forgets what is due to the institution, to the profession, and to himself.—[*Phil. Med. & Surg. Reporter.*

Criticism—These remarks are suggested by the controversy which has lately been rife between Dr. E. S. Gaillard, of the Richmond and Louisville Medical Journal, and Dr. T. S. Bell. The former, a few weeks since, reviewed a paper written by the latter. The review was severe, but as we read it, quite parliamentary, so to speak, both in its language and scope. The latter writer, in a reply, appears to us to attack Dr. Gaillard. Dr. G. prints a rejoinder as a *supplement* to the regular pages of his Journal, in which response he seems to us to keep still within the bounds of dignified controversy.—[*Boston Med. & Surg. Jour.*

The Nashville Journal publishes, under the ill-judged title of "Bell on Gaillard," an exceedingly scurrilous article by Dr. T. S. Bell, who, incensed by an unfavorable review of one of his literary productions, vents his indignation against the editor of the periodical in which that review appeared, by writing more than twenty pages of puerile verbal hypercriticism and abusive personalities. That such an article should ever be written is a lamentable instance of bad taste; that it should receive an editorial imprimatur is a reflection on medical journalism.—[*N. Y. Med. Gazette.—Detroit Med. Review.*

Unbecoming Medical Journalism.—The June number of the Nashville Journal of Medicine and Surgery, contains an article of abuse and scandal, by T. S. Bell, M.D., which

is too low and vindictive for publication in any paper, unless conducted in the exclusive interests of roughs and blackguards. The immediate provocation was the review of a work written by Dr. Bell, which appeared in the Richmond and Louisville Medical Journal, from the pen of the editor, Prof. E. S. Gaillard.—*Buffalo Med. Jour.*

Wounds of Joints.—A short but interesting discussion took place at a late meeting of the Paris Society of Surgery, on the subject of the treatment of wounds penetrating joints. The question raised was the following:

What is the best method of treating those grave inflammatory accidents which so frequently result from penetrating wounds of joints?

Surgeons take credit for being able to give a more positive diagnosis, and possessing more certain principles of treatment for their external maladies, than physicians can boast of for their internal ones.

Some surgeons, with M. Verneuil, are in favor of excision of the articular surfaces.

Others, including MM. Chassaignac and Alphonse Guérin, prefer the use of drainage.

Others, with M. Blot, think that very often the unaided efforts of nature are sufficient to obtain a cure, and recommend expectant treatment.

Others, and these are the majority, hold that it is difficult to lay down a general rule which shall be applicable to all cases, and that it is necessary to take into account, not only the amount of injury, but the joint injured, and the state of the patient's constitution.

Notwithstanding all these varying opinions, one great principle characterizes all the tendencies of modern surgery, which may be very well expressed in the words *Conservative Surgery.*

We frequently find that the immediate closure of the wound, absolute rest of the limb, and continued irrigations, exorcise the phenomena of inflammation, and rapidly accomplish a cure. But, again, these methods may fail. Are there no others? We are convinced, for our part, that the process of pneumatic occlusion is suited to render in these cases the very greatest service. This process, indeed, fulfills the triple indication arrived at in the treatment of joint wounds.

1. It keeps the wound closed and opposes the entrance of air. 2. By the compression it exercises, it contributes

to prevent and combat the inflammatory congestion or enlargment of the tissues. 3. By its suction power it completes (if suppuration has not been prevented) the indication of drainage, in opposing in a most active manner the stagnation of liquids.—*Gazette Medicale.*

Pulvis Ippecacuhanæ et Opii.—Perhaps there is no medicine in the materia medica more frequently prescribed by physicians than Dover's Powder; and it is quite essential that it should be the best possible preparation that is susceptible of being made. According to the Dispensatory, its largest constituent (the sulphate of potassa) serves no other purpose than by its bulk to dilute, and by its hardness to promote the minute division and thorough intermixture of the other ingredients. There is another salt of potassa (the chlorate) which, in addition to the above requisites, possesses valuable medicinal properties well suited to increase the efficacy of the compound, and can never be contra-indicated in any disease in which the Dover's Powder is administered. There are a great many diseases in which the powder is used more or less, that are complicated, with a sore mouth or throat, which the chlorate would rapidly cure; and I have been pleased with the enhanced efficiency of the preparation in those febrile states consequent upon taking cold and attended with a sore throat; also in bowel complaints, diarrhœa, cholera infantum, etc. Now, I respectfully suggest, that sulphate of potassa in the Dover's Powder be displaced by the chlorate of potassa in the next edition of the U. S. Pharmacopœia.—[*Boston Jour. of Chemistry.*

Chloroform Inhalation in Strychnia Poisoning.—A number of our exchanges report cases of poisoning from strychnia successfully treated by the inhalation of chloroform. In several instances the quantity of poison swallowed was quite enough to cause death, and the inhalation was continued twenty-four hours. Should further trial confirm these results, chloroform will speedily take the place of the other antidotes of strychnia.

Gonorrhœal Rheumatism.—F. B. Greenough, M.D., in an article on gonorrhœal rheumatism, in the Boston Med. and Surg. Jour., observes: "With regard to treatment, perfect rest is the most essential part. If the pain is

severe, two or three leeches may be applied with relief. Evaporating lotions may also be tried. When there is an effusion into the joint, the part may be rubbed with a salve containing iodine or iodide of potassium. If resorption does not take place, compression should be used, either by bandages, or still better by compressed sponges. All authorities agree that the remedies which have been supposed to be beneficial in rheumatism, such as the alkalies, colchicum, iodide of potassa, etc., have no influence in this affection. Perhaps it is lucky for us that the differential diagnosis is not dependent on this fact alone. The urethal trouble must be treated exactly the same as it would be if no articular complication existed."[—*Humboldt Med. Archives.*

MEDICAL NEWS.

"Nulla Dies, Sine Linea."

The Surgeon-General, U. S. A., has recently published one of the handsomest contributions to surgery that has ever been issued in Europe or America. It is a crowning honor to all concerned. This work will be carefully and fully reviewed.

The new medical school, "The Louisville Medical College," goes into operation in common with other schools, about the middle of September. The faculty has been fully organized. See advertisement.

NOTICE.—The editor of this journal has again entered school circles. One of his reasons for leaving these circles was, that the question of medical education in its relation to fees was agitating the professional mind, and, feeling a deep interest in it personally, he naturally wrote frequently on the subject. These writings were often supposed and believed to be the offspring of a partizan spirit, and not, as was intended, the manifestation of earnest and honest convictions. Being unwilling to be so painfully and injuriously misconstrued, and wishing to occupy a position manifestly impartial and independent, the resignation of school positions was deemed best. Accordingly, these reasons, with the responsibility of accumulating work, induced the editor of the journal to resign. Entering again the faculty of a medical col-

lege, *he will, to secure freedom from false and injurious imputations of partiality, partizanship, and unfairness, abstain from criticising the policy of individual medical colleges, or of writing in any manner that may enable the most captious to say that his pen is being used for the support or injury of any medical Institution.*

A Pathological Building for Dr. Brown-Sequard.—The Parisian government intends building a laboratoire for this distinguished pathologist, near the School of Medicine, in the garden of the Hospital des Cliniques.—*Medical Record.*

Professor Brunetti, the celebrated anatomist, of Padua, has been decorated with the orders of St. Anne of Russia, and St. Gregory the Great of Rome. This last honor, says L'Imparziale, has been conferred on him as a consequence of the illustrious astronomer, Father Secchi, having shown to the Pope some of his (Brunetti's) anatomical preparations illustrative of his researches on the means of preserving animal structures.—[*Ex.*

The First Successful Case of Hip-Joint Excision in Philadelphia.—Dr. John H. Ashhurst, jr., Phila., relates in the Pennsylvania Hospital Reports the "first successful case of hip-joint excision which has ever occurred in Philadelphia." He adds a tabular view of 242 cases of hip-joint excisions, which is the most complete yet published.—[*Med. Record.*

EDITORIAL.

"Nullius Addictus Jurare in Verba Magistri".—Hor.

Action of some Louisville Doctors.—The editors of the Philadelphia Reporter thus write: We have received a copy (official) of the following resolutions, which we very willingly publish, merely remarking in reply to the intimation that we did not know what we were writing about in our strictures on Dr. Bell's article, that as editors and physicians we do know the right of every editor to comment severely, if he sees just occasion, on public lectures and printed books, and the improprie-

ty of every physician in indulging in personal diatribes in medical journals because he feels hurt at such comments:

MEDICAL DEPARTMENT UNIVERSITY OF LOUISVILLE,
LOUISVILLE, July 23, 1869.

At a meeting of the faculty, held this day, the article from the Medical and Surgical Reporter was read, headed "unmannerly," whereupon it was

RESOLVED, That this faculty, while it entertains a high respect for the editors of the Medical and Surgical Reporter, and is disposed to listen candidly to their suggestions, claims to be more competent to judge of matters immediately under its eyes, than they can be at a distance.

RESOLVED, That in the controversy between Prof. Gaillard and Prof. Bell, in which the editors call upon the faculty to interfere, the faculty is of opinion that Prof. Bell has simply acted in self-defense, and that, under the provocation, his reply to Prof. Gaillard's attack was justifiable.

RESOLVED, That a copy of these resolutions be spread upon the records of the faculty and forwarded to the editors of the Medical and Surgical Reporter and to the editor of the Nashville Journal of Medicine and Surgery.

GEORGE W. BAYLESS, EDWARD R. PALMER,
J. MORRIS BODINE, JOHN E. CROME,
JAMES W. HOLLAND, DAVID W. YAUDELL,
LANSFORD P. YAUDELL, JR.

The above extract is taken from the Philadelphia Medical and Surgical Reporter. The resolutions given were evoked by the following notice (in the same journal) of the recent record of Dr. T. S. Bell before the medical public:

UNMANNERLY.—We regret to see such an exhibition of petty spite and ill-manners, as is made in the June number of the Nashville Journal of Medicine and Surgery, by T. S. Bell, MD., Professor of the Sciences and Practice of Medicine, in the University of Louisville, Kentucky, in an attack on E. S. Gaillard, M.D., editor of the Richmond and Louisville Medical Journal.

If the University of Louisville respects its own reputation, it will take some action to bring to a sense of propriety one of its faculty who so far forgets what is due to the institution, to the profession, and to himself.

The reader will see, by reading extracts, (published on pages 319-322) from all the journals which have spoken, what is the universal impression made on the mind of the medical public by the disreputable and disgraceful action of Dr. T. S. Bell and his appropriate companion,

W. K. Bowling, the editor who soiled the medical journalism of this country by giving currency to Dr. Bell's article. Dr. Bell's infamous, malevolent, and vile pasquinade of twenty pages, written as a desperate reply to a review of his transparent and pedantic efforts to hoodwink the public into a belief of his scientific and professional attainments, is not only a disgrace to himself and to all who have the misfortune to be connected with him, but it is a scandal to an entire profession which still numbers within its ranks one so lost to all sense of the decencies and proprieties of civilized life.

The medical press of the country so regards it and the Reporter but anticipated the voice of the press in its comments on this occasion.

The faculty who have the honor of numbering Dr. Bell among their members, not overwhelmed with shame at the disgrace which had befallen them in bearing any relation to one whom the medical press denounces in language that would cover any one else with unspeakable shame, endeavor to rescue Dr. Bell by becoming his apologists and defenders. As indorsers of his act they are as culpable as himself; and, by their course, they have voluntarily become parties to his disgrace—a disgrace which every medical press that has spoken denounces in just and scathing language. May they enjoy their honor. The writer pities them. Their saying that the writer's review of Dr. Bell's pretensions was "*an attack*" is so utterly puerile as not to be worthy of comment. They know and think otherwise, unless they have lost mental, as well as moral, appreciation of all the circumstances involved. All others who have publicly spoken have exhibited the usual appreciation of the admitted right of a public journalist to review any production that has become public property; and if this faculty have not yet learned a fact known to all but babes and sucklings, it is

time that they should so so. This study would be infinitely more remunerative than their foolish efforts to dry-nurse veteran journalists at Philadelphia, and to manifest the disreputable taste of seeking to intrude their views as to the proper method of managing private property. They have been told to mind their own business, and in language whose politeness is evidently due as much to the amusement as to the forbearance of the editors. There is one fact in the publication of these resolutions which should sting these small censors of the press, and cause them to appreciate themselves at a value long since unusual with them. This fact is, that in so prominent a medical centre as Philadelphia, and with veteran editors who know all the prominent physicians of this country, *the very names* of those who compose this faculty are unknown. In a faculty of seven names four names are incorrectly spelled: David W. Yaudell, Lansford P. Yaudell, John E. Crome, and J. Morris Bodine are given as the names of those who *have evidently never been heard of in Philadelphia.*

Brevities.—The medical world will learn with extreme regret, that the St. Louis Medical Reporter, edited by Drs. W.M. McPheeters and G.W. Maughs, has been discontinued. The result is due to the fact, that the publishers of the journal sold out their stock to other parties and the purchasers do not desire to continue the work. This journal was edited very handsomely and its loss is a serious one. ——As the Northern Dentists would not meet in convention at some southern city, after repeated invitations to do so, the Southern Dentists organized themselves into a convention and met very recently at Atlanta, Ga. This action, on both sides, is all wrong. The Dentists of the United States should have but one common Association,

meeting fairly and impartially (in a series of years) at varied centres North, South, East and West. Dental Science, like every science, should be catholic and not sectional in its aims, aspirations and developments. Dr. Redman, of Louisville, well-known and deservedly prominent, was one of the delegates at Atlanta; he owes it to his years, his brethren and his State to advocate wiser counsels in future.——Two new medical schools have been recently established; one at Indianapolis, Ind., with a fee of $45 00, and another at St. Louis, Mo., with a fee of $120 00. There is certainly no necessity for these schools, but they will not be condemned unheard. Let them make a good record and they will receive a good welcome.——The first number of the Gynæcological Journal has been issued. It is well edited and the publisher has discharged his duty well.——The Medical Association of the State of Maine has (as the editor has been informed by Dr. Buxton, one of its prominent members,) unanimously resolved to sustain the action of the American Medical Association in regard to the question of fees, lengthened terms, and all the essentials in an improved system of medical education.——A correspondent wishes all physicians to know that broths, jellies, soups milk, etc., may be prevented "from becoming sour," by stirring in a few drops of a saturated solution of the bisulphite of lime. Another writes, "every one should know that sweet milk is a perfect vehicle for chloroform." ——In the last number of one of our Indiana exchanges, Dr. David Yandell, of this city, has contributed an article on the use of Ipecacuanha, in large doses, in the treatment of dysentery. While the cases, as published, do not indicate the value of this treatment fully, the article will unquestionably have the good effect of directing attention to this very old and valuable mode of treating this disease. It is certainly strange that a medicinal

agent which was, over two centuries ago, first introduced to the notice of physicians, under the name of radix antidysenterica, which was long known as the basis of the great Brazilian mode of curing dysentery, which was enthusiastically adopted by French, English, East Indian and American physicians, and afterwards by leading practitioners of Europe, should have lapsed into desuetude and neglect. The doses used by Dr. Yandell are far less than those once familiarly and successfully adopted. ——All who wish to have a fair and adequate idea of the medical and secular literature of the world, should subscribe to Trübner's Oriental and Literary Record, London. It is issued monthly, at a very low rate, and gives at a glance the titles of most of the European and American issues of the month, with a full table of contents. The work is something of a curiosity in literature and will be examined with profit and pleasure by every one. ——In the Transactions of the Ohio State Medical Society, it is stated that Dr. Mussey read the "*resolutions*" adopted by the American Medical Association in regard to college fees, and that he *commented* "at length" on these resolutions. These comments must have been like those of "Sairey Gamp" in regard to the obstetrical trials of "Mrs. Harris." Very interesting, very interesting indeed, until it is discovered that the cause and origin of the comments had no existence—no such person as "Mrs. Harris" ever lived: no "*resolutions*" in regard to fees were adopted by the Association.——Dr. N. S. Davis, in the July issue of his Journal, states that the Kentucky School charging $120 for its fees is still a cheap school, and that the Chicago Medical College, charging $50 for its fees, is not a cheap school. He reasons thus: two courses at the Kentucky School, *including board*, would cost $415 00; three courses at the Chicago school, *if* the school required three courses, would, *board included*, cost $540 00. Ergo,

the Kentucky School is still a cheap school. The cost of cigars and bar-room expenses, and theatre and circus recreations, etc., etc., is not included or the result might have been modified; these calculations must be made before it can be determined, *according to the method of Dr. Davis*, whether a school is a cheap school or not. The Doctor ought certainly to be congratulated on his novel and very original mode of determining the merits of the fee question. The writer of the horse-chestnut and chestnut-horse argument has lost his laurels! Dr. Davis has certainly eclipsed him.——The editor is constantly asked if Dr. T. S. Bell is still alive, "after having been the victim of *capital* punishment." Can a man be said to still live after having received *capital* punishment? Who can solve this enigma in medical jurisprudence? The replies (without the names) will be published and the author of the best reply shall receive the Journal, for one year, without charge. The question is, "Can there be *capital* punishment without death"? The answer "yes, by a *supplement*," will not be considered.——If any one wishes to have printing done on reasonable terms and by the most liberal house in Louisville, let him apply to Bell & Co., of this city. They are the publishers of this Journal, 133 West Main st.——Students who wish to go North to attend a course of medical lectures, in Summer, can not do better than to enter the class at the Long Island College Hospital; the advantages are very superior and the Faculty is worthy of the fullest commendation. ——On the fourth cover page will be found an advertisement in regard to a private Asylum for the Insane. The superintendent, Dr. Given, has secured the entire confidence of all who know him well. His Institution is a very superior one and he is fully qualified to discharge the arduous and difficult duties devolving upon him.—— One of the medical editors north of the Ohio has in-

formed the editor of this Journal, that a young professor in a Louisville Medical College was, during the year 1868, guilty of gross plagiarisms from the London Lancet. Who is the culprit?——A fact which ought to be known to every physician is, that in the process of "bolting" flour, from the cereals, the most valuable parts of the grain, the phosphates, are lost or removed, and that a baking powder scientifically prepared not only accomplishes all that the best baking powder can accomplish in the so-called "raising" of the bread, but that it restores *fully* the phosphates which have been removed. The baking powder is prepared by adding together two powders; one of these powders consisting of bi-carbonate of soda and the other of the acid phosphate of lime. When these powders are incorporated in the leaven, chemical decomposition takes place, the carbonic acid escapes, raising the leaven in its escape, and there remains in the bread the two valuable salts, phosphate of lime and phosphate of soda. The editor has used these powders largely in his own family and he can confidently recommend them, either in making bread for domestic purposes, or where the administration of the phosphates is particularly indicated.——The Craig microscopes ordered are sent as soon as they are received; the manufacturer is using every effort to supply the demand.——The editor is repeatedly asked on what terms he will sell to advertisers, editorial notices; his reply has, for nearly four years, been the same, that he has never received a consideration for such notices, and that he never will.——The worthy editor of the Cincinnati Lancet and Observer, Dr. Stevens, states that the publication of the unpleasant differences between Louisville physicians may be justifiable in their opinion, but that he condemns the act; *he states, however, that he knows nothing of the circumstances.* It is supposed to be customary and proper for a jury to give a verdict

after hearing the evidence and not before. *Verbum sap.* ——The Kentucky State Medical Society invited many physicians of Ohio to be present at its meeting last April and made these attending physicians honorary members. Many physicians from Kentucky would have attended the meeting of the Ohio State Society, *if they had been invited.* Who constituted the *hospitable committee* of the Ohio Society?——One year ago the Kentucky State Medical Society invited the editor to remove his Journal to Louisville; among the three hundred Kentucky subscribers there are but few members of this Society. Is this right? ——Extra sheets of articles contributed to this Journal are published at the price charged by the publishers.—— The last circular of a Western Medical College informs the profession, that the candidates for graduation are requested "to produce a thesis on some medical subject composed by themselves." This is one of the smallest blunders made in the publication.——In the advertising pages, the words "*Baltimore, Md.,*" were unintentionally omitted after the caption of the advertisement issued by the University of Maryland.——Several Journals and the circular of the University of Nashville, contain the statement that the American Medical Association passed "resolutions" to the effect that medical schools charging less than $120 00 as the minimum for a full course of collegiate lectures would not be allowed representation at the Association in future. This is a serious blunder. The Association unanimously voted as its judgment and request that $120 00 should be the minimum charge. This was done on "motion," the "resolutions" received a different disposition. There was no penal enactment in this relation.——It is worthy of remark and attention that the present President of the American Medical Association, which passed unanimously a motion expressing as the judgment and request of American physicians that $120

should be the minimum fee charged by a medical college, is now a leading member of the faculty of an Institution which charges exactly one-half of the minimum amount determined upon by the body over which he presided: the body which elected him as the custodian and representative of its honor, its character, and its laws.——It will scarcely be credited by the profession at large that a Louisville doctor has preferred charges (before a Louisville medical society) against the editor for his last editorial NOW AND THEN. It is claimed to be unjust, a libel, unethical, etc. "Let the galled jade wince; our withers are unwrung." It costs something to speak the truth, but the truth shall be spoken. As long as "there is something rotten in Denmark" the writer hopes to earn frequently the received compliment "acu rem tettigisti." It is somewhat farcical that one who for years has worked and written and toiled, for the good, for the elevation, and for the dignity, of his profession, should be charged with a desire to injure it!! Medical editors should quake; for if they further presume to publish their opinions; if they presume to act as reviewers; if they say that the profession is far from being immaculate; if they expose its vices, its corruptions and its follies; its disgraceful acts, and the words of those who pollute and defame it, they will be in great danger of receiving very foolish attacks from very foolish people; and though these attacks are very harmless indeed, they are enough to make an editor quake, for fear that he may denounce such silliness, in language which could scarcely be sufficiently appropriate without a sacrifice of equanimity or politeness. A few Louisville Doctors have attempted to dry-nurse two Philadelphia medical editors, and at present a comic effort of this kind is being made with the editor of this Journal. Whose turn will come next? Verily, there are those who play such fantastic *tricks* before high

heaven as would make angels weep. When the lambs of a flock cry out, one may admire their innocence and their graceful appeal for help, but when the old ones of the flock make a noise, it may be certain that the cry is one either of alarm or mischief. The charges made against the writer are from a "grave and reverend signior." He alleges that the writer is libellous in the editorial NOW AND THEN, when he says that it is unwise to elect those to professorial chairs who (as children, young or old) have given no evidence of fitness for such a position. The proof of the truth of the writer's statement may be found in the history of the individual who makes the charge. Again, it is urged that the writer is unethical, unprofessional, etc. Be it known, that the individual who thus charges him has publicly lent the use of his name (when a professor in a college) to the support of one of the most notorious nostrums in America, John Bull's sarsaparilla. In that classic sheet in medical literature, "John Bull's Family Sarsaparilla Journal," is to be found a certificate from this ethical member of the profession in support of Bull's compound sarsaparilla; given not after use and examination, but after "looking at a list of the ingredients." Here is a censor of the Press! "A Daniel come to judgment! yea, a Daniel. Oh, wise judge, how I do honor thee." This is enough for the present. Muzzling the press will not do in this country. Those who have tried to do so have always had reason to remember their folly, and those who have not gained wisdom by the experience of themselves and others, will find that it is as foolish now to interfere with the liberty of the press in America, as it has always been and always will be. *Verbum sat sapienti.*

Died—In Dublin, March 28, 1869, Maurice Henry Collins, M.D., F.R.C.S.I., Surgeon to the Meath Hospital and County Dublin Infirmary, in the 45th year of his age. On the 22d March, while engaged in the Meath Hospital in removing the upper jaw for a cancerous tumour, he slightly punctured his finger, but thought no more of the occurrence until two days afterward, when he was seized with a severe rigor, speedily followed by other symptoms of blood poisoning, and eventually by secondary pneumonia, which proved fatal in four days. Dr. O. was an accomplished surgeon, and highly esteemed by his professional brethren.

Died—At Brighton, March, 1869, Sir Joseph Francis Olliffe, M.D., for the last seventeen years physician to the British Embassy at Paris.

Died—May 17th, 1869, Dr. A. McOliver, of Montgomery, Alabama; a prominent physician in his State and a most worthy citizen.

Died—May 26th, in Philadelphia, Dr. James Rush, in the 84th year of his age. His life will be published in this Journal.

Death of Joseph Bullitt.—Meeting of Medical Students.—At a meeting of the medical students of Louisville, Ky., July 21st, 1869, the following resolutions were adopted:

Whereas, It has pleased Almighty God to remove from our presence our fellow-student and associate Joseph Bullitt—

Resolved, That we hear with great sorrow of his premature death, and that we deeply sympathize with his family in their deep affliction.

Resolved, That he was loved by all who knew him, and that we consider his life an example worthy of imitation.

Resolved, That, while we grieve that he is taken from us, we are sure that our loss is his eternal gain.

Resolved, That these resolutions be published in the Courier-Journal, and in the Richmond and Louisville Medical Journal, and a copy be sent to the family of the deceased. [Signed,]

I. S. Warren, R. B. Stockton,
Geo. Herchmer, J. T. Williams.

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VIELPEAU.

THE RICHMOND AND LOUISVILLE

MEDICAL JOURNAL.

VOL. VIII. OCTOBER, 1869. No. 4.

ORIGINAL COMMUNICATIONS.

"Qui Docet Discit."

ART. I.—OBSERVATIONS UPON THE LOSSES OF THE CONFEDERATE ARMIES FROM BATTLE, WOUNDS AND DISEASE DURING THE AMERICAN CIVIL WAR OF 1861–1865, WITH INVESTIGATIONS UPON THE NUMBER AND CHARACTER OF THE DISEASES SUPERVENING UPON GUN-SHOT WOUNDS. By JOSEPH JONES, M.D., Professor of Chemistry in the Medical Department of the University of Louisiana, and Secretary to the Southern Historical Society, New Orleans, La.

It is important in the first place to determine the entire number of gun-shot wounds received by the Confederate forces, during the recent war, and the relative number of wounds, which terminated fatally on account of the supervention of those diseases (as pyæmia, hospital gangrene and erysipelas,) which were referable in their origin and progress, in a great measure, to the condition of the general system at the time of the reception of the injury, and the nature and perfection of the hygienic arrangements for the wounded.

Without doubt pyæmia and other supervening diseases, caused a large number of deaths after gun-shot wounds, in the Southern armies; but when the inquiry is made for accurate statistics, several grave difficulties are encountered.

The sudden termination of the war, and the destruction and capture of the Confederate records, has rendered it difficult, if not impossible, to obtain accurate information, as to the entire casualties of the war. In order to make as near an approximation to the entire numbers killed and wounded on the Confederate side, it has been necessary for the author to examine carefully all the official reports in his possession, published by the Confederate authorities, as well as the reports of the most trustworthy witnesses, who described the battles and operations of the Confederate armies.

Even if the independence of the Confederate States had been established by force of arms, it would have been impossible to have preserved full and accurate records of the casualties of war, during the military operations of a people, who numbered at their best estate, less than twelve millions (near four millions of whom were negro slaves, who so far from adding anything to the effective strength of the Confederate armies, formed an *admirable* recruiting ground for the opposing forces) and who were sparsely settled upon an immense territory of more than eight hundred thousand square miles; and who, in their gigantic and desperate struggle of four years, called out the entire available fighting population, and employed the males in some one of the arts and operations of war, and were cut off from the rest of the world, by immense armies on the land, which were continually making inroads into the bleeding and torn borders and overrunning and isolating State after State, and securing the entire dominion by the opening of the Mississippi; and on the sea, excluded from all foreign intercourse, by formidable fleets, which patroled every sound and the mouth of every river and inlet; and with the necessity of fighting daily along the borders, so that more than one hundred and fifty engagements might be

enumerated, which rank with battles, not to mention at least *ten thousand* lesser affairs and skirmishes, all around the fiery circle.

From the best sources of information at our command, we have made the following estimates of the Confederate losses in killed and wounded, and prisoners during the war:

During the first year of the war, 1861, the chief engagements were those of Fort Sumpter, April 13; Philippi, June 3; Great Bethel, June 10; Boonville, June 17; Carthage, July 5; Carnock's Ford, July 12; Rich Mountain and Laurel Hill, July 11; Bull Run, July 18; Battle of Manasses, July 21; Oak Hill, August 10; Hatteras, August 28; Lexington, Mo., Sept. 19 and 21; Greenbrier river, Oct. 3; Santa Rosa, Oct. 8 and 9; Leesburg, Oct. 21; Rock Castle Ford, Oct. 21; Belmont, Nov. 7; Port Royal, Nov. 6 and 7; Piketon, Nov. 8 and 9; Pensacola, Nov. 22; Alleghany, Dec. 13, and Drainsville, Dec. 20.

The total casualties for 1861, including the preceding more important affairs, and the lesser engagements and skirmishes amounted, on the Confederate side, to 1315 killed, 4054 wounded; making the aggregate for 1861, of Confederate killed and wounded, 5369. The loss of the Confederates, in prisoners, during 1861, is estimated at 2772.

The campaign of 1862 was conducted with the utmost vigor. In Virginia, the Confederate forces fought in quick succession many sanguinary battles. The affairs of Warrenton, March 15 and of Winchester, March 23, were followed by the bloody battle of Williamsburg, May 5; Seven Pines, May 31 and June 1; Harrisburg, June 5; Port Republic, June 8 and 9; Cross Keys, June 8; Mechanicsville, June 26; Cold Harbor or Gaines' Mill, June 27; Frazier's Farm, June 29; Wills' Church, June

30; Malvern Hill, July 1; Cedar Run Mountain, August 9; Second battle of Manassas, Aug. 29 and 30; Harper's Ferry, Sept. 14; Boonsboro' Gap, Sept. 13; Sharpsburg, Sept. 17, and Fredericksburg, December 13 and 14.

In the West the ball was opened by the battle of Fishing Creek, Jan. 19, and quickly followed by the fall of Forts Henry (Feb. 5 and 6) and Donaldson (Feb. 14 and 15) and by the bloody battle of Shiloh, April 6 and 7, and after many minor affairs, the Confederate operations in Tennessee closed with the great battle of Murfreesboro, Dec. 31. This list of battles in the West would not be complete without an enumeration of the engagements of Elkhorn, March 7 and 8; New Madrid, March 13; Valverde, March 21; Island No. 10, April 7; Cumberland Gap, April 28 and 29; Tazewell, August 5; Baton Rouge, Aug. 5; Gallatin, Aug. 20 and 21; Richmond, Ky., Aug. 29 and 30; Iuka, Sept. 19 and 20; Corinth, Oct. 3, 4 and 5; Perryville, Oct. 8; Coffeeville, Miss., Dec. 5 and 6, and Chickasaw Bayou, Dec. 28 to 30.

Active military and naval operations were also carried on along the coast of Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana and Texas, as shown by the affairs of Port Royal Run, January 1; Roanoke, Jan. 7 and 8; James Island, Jan. 27; Galveston, Jan. 18; Newburn, N. C., March 4; Hampton Roads, March 8 and 9; St. Mary's Run, Ga., March 25; Musquito Inlet, March 22; Edisto Island, S. C., March 29; Jacksonville, Fla., March, 31; Fort Pulaski, Ga., April 11; White March Island, April 16; Fort Jackson, April 24; Fort Macon, April 25; Drury's Bluff, May 15; James Island, June 3; Memphis, June 6; Secessionville, June 16; Vicksburg, May 26 to July 24; Pocotaligo, Sept. 22; Albermarle, Sept. 27; Galveston, Dec. 1; St. Bernard's river, Texas, Dec. 3; Plymouth, Va., Dec. 10.

These active operations were attended with a long list of killed, wounded and prisoners.

In 1862 the Confederate armies lost 18,582 killed outright upon the battle field; 68,659 wounded, and 48,300 prisoners.

The military operations of 1863, were distinguished in Virginia, chiefly by the battles of Kelly's Ford, Feb. 16 and 17; of the Rappahannock, May 2, 3 and 4; Gettysburg, July 2 and 3.

In the West, this year, was characterized by a long train of Confederate reverses; Arkansas Post, January 9 and 10; Fort Donelson, Feb. 8; Franklin, April 9 and 10; Bayou Pierre, May 1; Raymond, May 12; Jackson, Miss., May 14; Baker's Creek, May 16; Big Black bridge, May 17; Hoover's Gap, June 4; Helena, July 3; Vicksburg, July 4; Port Hudson, July 9; Jackson, July 16; Cumberland Gap, Sept. 8; Little Rock, Sept. 9 and 10; Lookout Valley, October 29; Knoxville, Nov. 18 to 29; Lookout Mountain, Nov. 23 and 24; Missionary Ridge, Nov. 25.

The bloody battle of Chickamauga, prolonged through the greater part of two days, September 19 and 20, restored victory to the standards of the Confederacy in the West, but this bloody triumph had no other practical effect than the prolongation of the unequal struggle.

The most extensive naval operations were those at Charleston Harbor, Morris' Island, Fort McAllister, Ga., and Galveston, Texas.

In 1863, the Confederate losses, in killed and wounded, were less than in the preceding year, but the number of Confederate prisoners was greater, viz: killed, 11,876; wounded, 51,313; prisoners, 71,211.

The military operations of 1864 were not inferior to those of the two preceding years, either in the magnitude of their preparations or the importance of the results.

In Virginia, the opening of the campaign against Richmond, by the crossing of the Rapidan river, by General Grant's army, on the 4th of May, was followed by continuous fighting and skirmishing up to the time of the surrender of the renowned army of Northern Virginia, on the 9th of April, 1865; and amongst the numerous battles and engagements may be named the great battles of the Wilderness, May 5-6, in which the Confederate loss amounted to near six thousand wounded, one thousand killed, and fifteen hundred prisoners; Port Walthall Junction, May 8-9; Spottsylvania Court-house, May 12; Port Walthal, May 17-18-19; Guinea's Station, May 18-19; Bermuda Hundreds, May 20; Gaines' Mill, June 2; Petersburg, July 16-19; Ream's Station, June 30; White Farm, August 16.

Early in May, almost simultaneously with the great onward movement of the United States forces in Virginia, General Sherman began his march into Georgia; the retreating army of General Johnston, delivered battle whenever pressed; and the Georgia campaign, of 1864, was distinguished by continuous fighting from Dalton to Atlanta; at Dog Gap, May 8; Rocky Force Ridge, Mill Creek Gap, May 10-12; Resaca, May 14-16; Etowah Ridge, May 20; Cassville, May 24; Dallas and New Hope Church, May 25-26-27; Kennessaw Mountain, June 27. The killed and wounded on the Confederate side during this retreat amounted to near ten thousand.

The bloody battles around Atlanta, on the 20th, 22d, and 28th of July, as well as the spirited siege of this place, closed by the disastrous conflicts of Jonesboro, August 31, September 1, added a list of killed and wounded larger even than that of the retreat from Dalton to Atlanta.

The shattered remnants of the army of General Hood, after the disastrous Tennessee campaign, distinguished

by the battles of Franklin, November 30, and Nashville, December 2, were finally gathered in North Carolina, took part in the battle of Bentonville, March 19, 1865, and closed its career on the 18th of April.

From the commencement of 1864 to the termination of the war the heavy list of killed and wounded was still farther increased by the Florida campaign (battle of Ocean Pond or Olustee Station, February 20, 1864), the cavalry operations of Generals Forrest, Morgan, Wheeler, and Hampton, the military operations in Mississippi and in the trans-Mississippi department, and naval and military operations around Mobile, Savannah, and Charleston.

It is impossible to form an accurate estimate of the Confederate losses from the commencement of the year, 1864, to the termination of the struggle, near the middle of 1865, as the author has no knowledge of any published official reports giving the casualties of the military and naval operations. But he is inclined, from an examination of the reports of battles published in the newspapers during this year, to regard it as the bloodiest period of the struggle.

The month of May, 1864, has justly been termed the "*bloody May*" from the unprecedented carnage in Virginia, Georgia, and other portions of the Confederacy.

It has been estimated that during this month alone, the Confederate killed amounted to 10,000 in Virginia, 5,000 in Georgia, and 4,000 in the West. If this calculation be within the bounds of truth, the killed during this month alone exceeded the entire number for 1863.

As an approximate estimate, we may state, the casualties of the Confederate armies for 1864 and 1865, at about 22,000 killed and 70,000 wounded.

The following table furnishes an approximation to the Confederate losses during the war:

Killed and Wounded and Prisoners of the Confederate Army, during the War, 1861-1865, Calculated from Official Reports and Other Sources. By Joseph Jones, M.D., formerly Surgeon, P. A. C. S.:

Year.	Killed.	Wounded.	Prisoners.
1861 -	1,315	4,054	2,772
1862 -	18,582	68,659	48,300
1863 -	11,876	51,313	71,211
1864 } 1865 } -	22,000	70,000	80,000
Total, 1861-65, -	53,773	194,026	202,283

The records of the sick and wounded, treated in the field and general hospitals during the war, are in like manner, from similar causes, imperfect.

From all the reports on file in the Surgeon General's office for the years 1861 and 1862, exclusive of those from the trans-Mississippi department, the following grand summary of sick and wounded was compiled, and illustrates the comparative mortality from gunshot wounds, and a few of the leading diseases of the Confederate States Army under treatment during the years 1861 and 1862:

Gunshot Wounds—Field, 29,569 cases, 1,623 deaths, and 493 discharges; hospitals, 47,724 cases, 2,618 deaths, and 742 discharges.

Continued Fevers—Field reports, 36,746 cases and 5,205 deaths; hospital reports, 40,565 cases and 7,020 deaths.

Paroxysmal Fevers—Field reports, 115,415 cases and 848 deaths; hospital reports, 49,311 cases and 485 deaths.

Eruptive Fevers—Field, 44,438 cases and 1,036 deaths; hospital, 32,755 cases and 1,238 deaths.

Diarrhœa and Dysentery—Field, 226,828 cases and 1,696 deaths; hospitals, 86,506 cases and 1,658 deaths.

Pulmonary Affections—Field, 42,204 cases, 3,434 deaths,

and 4,538 discharges from service; hospitals, 36,988 cases, 4,538 deaths, and 1,135 discharges.

Rheumatism—Field, 29,334 cases and 1,142 discharges; hospitals, 30,438 cases and 700 discharges.

All Other Diseases—Field, 324,321 cases and 2,278 deaths; hospitals, 123,402 cases and 1,802 deaths.

Whole number of cases, exhibited in the Field Reports during 1861 and 1862, was 848,555; of which 16,220 died and 10,455 were discharged from service.

There were admitted in hospitals, for the same period, 441,689 cases; of which 19,359 died, and 6,485 were discharged.

These reports also show, that of all the cases represented as originating in the field, but 108,068 were sent to general hospitals. The large number received into hospitals, as shown by these returns, can only be accounted for in the repeated transfers of patients during convalescence, from one hospital to another.

Those portions of these statistics which relate to the deaths from diseases and gun-shot wounds, and the discharges from wounds and diseases, added to the casualties of battle, make the total losses of the Confederate armies during 1861 and 1862, as follows:

Killed outright in battle,	19,897
Deaths caused by wounds in field hospitals,	1,623
" " " " general hospital,	2,618
" " " disease in field hospital,	14,597
" " " " general hospital,	16,741
Total deaths from all causes in Confederate Army, 1861-2,	**55,476**
Total wounded in the C. S. Army, 1861-2,	72,713
Total prisoners,	51,072
Discharged,	16,940
Total wounded, prisoners and discharged in the C. S. Army, 1861-62,	**140,725**

If the deaths from gun-shot wounds in the field and general hospitals, 4241, be subtracted from the total deaths from all causes, and then the remainder be added

to the total wounded, prisoners and discharged, we have an approximation to the total loss sustained by the Confederate army, exclusive of desertions, during 1861-62, of 179,814.

The preceding results are only approximations, for many wounds were very slight and incapacitated the men from active duty, only during short periods of time; but on the other hand, the deaths of Confederate prisoners in Northern prisons are not included, nor are the desertions; and the field and hospital reports were incomplete, as is shown in the absence of reports from the trans-Mississippi department.

In the absence of full returns from the sick and wounded treated in the field and general hospitals during the remainder of the war, nothing more than an approximate estimate can be formed.

If it be fair to assume that the mortality of 1863-64 was fully equal to that of 1862, then the total deaths in the Confederate army during the four years of war, 1861 to 1865, reached at least 160,000, exclusive of the deaths in Northern prisons, which would swell the number to near 185,000; and if the deaths amongst the discharged for wounds and diseased, and amongst the sick and wounded on furlough be added, the grand total of deaths in the Confederate army, during the entire war, did not fall short of *two hundred thousand* (200,000).

According to this calculation the deaths from disease were about three times as numerous as those resulting from the casualties of battle. This result is in accord with the general experience of military surgeons and illustrates in the most forcible manner the great truth that armies are rendered inefficient and destroyed not so much by actual fighting as by the silent action of disease. We have moreover in such facts, an overwhelming argument for the *thorough* organization of an intelligent and

efficient medical corps, and for the establishment and perfection of the best sanitary and dietetic measures.

There is no doubt but that in the recent struggle an immense number of valuable lives were sacrificed to bad police and sanitary regulations and to foul, badly ventilated hospitals established in the centre of crowded cities.

Mr. Stanton reported to Congress, July 19, 1866, that of Southern prisoners there died in the North, 26,436, and of Northern prisoners in the South, 22,576. In my estimate of the total deaths from all causes in the Confederate armies I had reported the deaths amongst the Southern prisoners confined in Northern prisons at about 25,000. Mr. Stanton gives the total number of Confederate prisoners confined in the North at 220,000. This estimate is larger than my own, because in this number were included civil prisoners and persons accused of various crimes, as "*bushwhacking*," etc., who did not appear upon the Confederate rolls.

In the hospitals, attached to the A. N. V., the mortality from wounds in 1862, amounted to 11.2 per cent.; in 1863 to 2.3 per cent. This difference appears to have been due to the fact that the men had become hardened and better able to resist the influence of climate and exposure, and the battles which occurred during the year in Virginia, transpired at a season far more favorable to recoveries.

Instead of being crowded together in hastily extemporized hospitals during the intense heats of mid-summer, as they were in 1862, the wounded from the battle of Chancellorsville, (fought early in May), enjoyed a delightful and salubrious season for treatment and recovery, whilst only the more slightly wounded were received from the bloody field of Gettysburg, and the grave cases left in the hands of the enemy to die.

The excellent condition of the Virginia hospitals, in

1863, seemed to repress all tendency to the prevalence of erysipelas or gangrene.

In 1863, 42,885 cases of wounds were treated in hospitals, with only 999 deaths—this yields a mortality of 2.3 per cent.; a more accurate estimate, however, is obtained by assuming that the numbers reported from the field, were all that were treated in hospitals, and this being 27,206, and the mortality 999, the per centage of deaths from gun-shot wounds is 3.7. The aggregate deaths for the year 1863, in Virginia, in field and in hospital from gun-shot wounds, is 1,723, or 2.4 per cent. of the whole number of cases reported.

When we attempt to determine the actual number of cases of pyæmia and associated diseases as hospital gangrene, occurring after gun-shot wounds, we are met with the difficulty that these diseases did not appear upon the printed official sick reports of the Confederate States until near the middle of the war.

The author carefully examined and consolidated the field and hospital reports, on file in the Surgeon General's office, Richmond, Va., up to August, 1863, with the following results:

Table giving the mean strength of officers and men, the total sick and wounded, the aggregate sick and wounded, the total cases gun-shot wounds of pyæmia, hospital gangrene, and erysipelas, in the Confederate army, during nineteen months, January, 1862, to August, 1863, consolidated from field and hospital reports by Joseph Jones, M.D., Surgeon, P. A. C. S.:

MONTH AND YEAR.	FIELD REPORTS.						HOSPITAL REPORTS.				
	Mean strength officers and men	Taken sick and wounded during the month	Aggregate sick and wounded during the month	Cases of pyæmia	Cases of hospital gangrene	Cases of erysipelas	Total sick entered during month	Aggregate sick and wounded	Cases of pyæmia	Cases of hospital gangrene	Cases of erysipelas
1862.											
January	232138	90757	115416			368	3292	5727		2	34
February	219169	71672	96463			284	2472	4798		3	24
March	165047	50385	63387			218	2341	3999			18
April	58304	23243	27559			215	2543	6784			12
May	58690	25985	30491			270	9700	14067			51
June	136362	78583	94487			378	16605	26120			111
July	79999	41700	55997			239	18918	28437			63
August	113407	50987	64436	3		178	21546	31662			85
September	125408	42450	61432	3		86	46733	55726			109
October	156734	48605	59841	3		154	39170	53970			90
November	270480	71328	90472	4		444	44890	50164	1		189
December	172800	67481	85769	2		411	29032	44282			93
1863.											
January	192776	76020	96053	3		471	12542	27784	1		113
February	215458	60135	80889	4	2	398	13378	28652		3	96
March	313848	92788	117171	1	1	439	12809	24817			88
April	190518	60407	74806			345	14844	26628			171
May	163711	49589	63211	7		387	41889	57822	5		240
June	107153	33805	43114	7		167	27389	46702	11		182
July	72396	20849	24807			95	37073	55708	6		100
Total	160231	1057349		27	3	5537	397406		24	8	1866

During this period of nineteen months, when over one million cases of disease and wounds were entered upon the field reports, and near four hundred thousand upon the hospital reports, and whilst more than fifty thousand cases of gun-shot wounds were under treatment, we find the record of only 27 cases of pyæmia upon the field reports, and only 24 upon the hospital reports; and hospital gangrene which appeared early in 1862 and prevailed extensively in many of the military hospitals of

the Confederate armies, numbers only 3 cases upon the field reports and 8 cases upon the hospital reports.

A large proportion of the deaths after amputation, resection and other surgical operations were, without doubt, due to the supervention of pyæmia, and in certain hospitals to moist gangrene. In this connection it will be of interest to examine the statistics of the Confederate military surgery. These returns are incomplete, that is, they do not embrace the whole number operated on, with the results, as the work of consolidation and classification was tedious and a vast amount in this statistical field of research remained to be accomplished at the time of the sudden and unexpected termination of the war.

Consolidated Table of Amputations, from June 1, 1862, to February 1, 1864, collected from Reports in the Surgeon General's office, under the direction of Surgeon F. Sorrel, Inspector of Hospitals.

	PRIMARY.				SECONDARY.			
	Cases.....	Cures.....	Deaths....	Per Cent.	Cases.....	Cures.....	Deaths....	Per Cent.
Thigh	345	213	132	38	162	43	119	73
Leg	314	219	95	30	150	76	74	49
Arm	294	252	42	14	140	87	53	37
Fore arm	69	61	8	12	45	35	10	22
Shoulder joint	79	54	25	31	28	8	20	71
Elbow joint	4	3	1	25	3	2	1	-
Wrist joint	7	5	2	28	-	-	-	-
Hip joint	3	1	2	66	-	-	-	-
Knee joint	5	2	3	60	6	-	6	100
Ankle joint	6	4	2	33	4	4	-	-
Tarsal joint	16	13	3	19	8	7	1	12
Total	1142	827	315	27	546	262	284	51

The report of a much larger number of amputations had been received at the Surgeon General's office, but as the results of treatment in many cases was not given, these doubtful successes were omitted from the table.

From this table we see that the whole number of am-

putations of thigh was 507; primary 345, recovered 213, died 132; 38 per cent: secondary 162; recovered 43, died 119; 73 per cent. Amputations of the leg, whole number 464—primary 314; recovered 219, died 95; 30 per cent.; secondary, 150; recovered 76, died 74; 49 per cent.

Amputation of the arm, whole number, 431—primary, 294; recovered 252, died 42; 14 per cent; secondary, 140; recovered 87, died 53; 37 per cent.

Amputations of the forearm, whole number 114—primary 69; recovered 61, died 8; 12 per cent.; secondary 45; recovered 35, died 10; 20 per cent.

Amputation of the foot: primary (Chopart's) 16; recovered 13, died 3 ;(Syme's) 2, recovered 2; (Pirogoff's) 4, recovered 2, died 2; secondary (Chopart's) 8, recovered 7, died 1; (Syme's) 4, recovered 4, (one unsuccessful, requiring subsequent amputation above the ankle joint.)

The cold water treatment of wounds was almost universally adopted in both field and hospital practice, and appeared to possess advantages over every other dressing. Under this treatment, even a fair proportion of gun-shot wounds of joints recovered, where no operation was attempted.

In knee-joint injuries, which, when not operated on, have heretofore been considered as almost always fatal, nearly fifty per cent. were cured by securing rest, immobility of the injured joint and by employing the cold-water dressing (irrigation being preferred) and by the free use of opium.

Consolidated Table of Injuries of Joints, treated without Amputation, made up from records in the Surgeon General's office, from June 1st, 1862, to February 1st, 1864. Prepared under the direction of Surgeon F. Sorrel by Surgeon H. Baer.

	Shoulder.	Elbow.....	Wrist	Hip.....	Knee	Ankles....	R marks.
Cases of gun-shot injury.....	17	55	28	8	103	2	Of these 7 recovered with serviceable limbs, & 45 with anchylosed joints. Remainder not stated.
Recoveries.....	11	50	26		50	2	
Anchylosis.....	3	22	7		21	1	
Serviceable.....	3	4	1		2	1	
Deaths.....	6	5	2	8	53	0	
Per centage of mortality.....	35	09	07	100	51	2	
Average period of death.....	19	39	35	60	40	27	Days.
Greatest period of death.....	39	59	35	119	163	44	do
Least period of death.....	9	6	35	18	15	16	do
Average period of recovery.....	132	101	95		166	71	do
Greatest period of recovery.....	264	270	240		285	110	do
Least period of recovery.....	32	28	45		96	43	do

In comparing the table of the injured joints not operated upon with the table of resections, it must be remembered that the more serious cases were operated upon. If these had been treated without resection or amputation, the mortality amongst such would have been very heavy. In many of the cases above reported, the joint was simply opened without injury to the bones, while in all cases of resection, the ball had entered the joint, tearing up the capsule and in most instances crushing the articular surfaces.

Consolidated Table of Resections made up from the records in in the Surgeon General's office, from June 1st, 1862 to February 1st, 1864.

	Shoulder.	Elbow	Wrist	Hip	Knee.....	Total.....
Primary.						
" successful, ...	28	22	2			52
" unsuccessful,.....	13	3			2	18
Secondary.						
" successful, ...	20	23	1	1	1	46
" unsuccessful,.....	7	6		1	1	15
" useful joints,.....	2	7				9
Total	70	61	3	2	4	140

From the preceding table we see that the whole number of resections analyzed for this table, were 140: primary shoulder-joint 41, recovered 28, died 13; 27 per cent.: primary elbow-joint 25, recovered 22, died 3; primary, wrist-joint 2, recovered 2; primary knee-joint 2, died 2; secondary shoulder-joint 26, recovered 19, died 7; 21 per cent: secondary elbow-joint 29, recovered 23, died 6; secondary wrist joint 1, recovered 1; secondary hip-joint 2, recovered 1, died 1; secondary knee-joint 2, recovered 1, died 1.

Consolidated Table of Disarticulations, made up from Records in Surgeon General's office, from June 1, 1862, *to February* 1, 1864.

DISARTICULATIONS.	Shoulder...	Elbow	Wrist.....	Hip	Knee	Total .....
Primary—						
Cases.....	54	3	5	1	2	65
Deaths.....	25	1	2	2	3	33
Secondary—						
Cases.....	9	2				1
Deaths.....	20	1			6	2
Total.....	108	7	7	3	11	13 6

Disarticulations, whole number, 136; primary—shoulder-joint 79, recovered 54, died 25; 31 per cent.; primary, elbow-joint 4, recovered 3, died 1; primary, wrist-joint 7, recovered 5, died 2; primary, hip-joint 3, recovered 1, died 2; primary, knee-joint 5, recovered 2, died 3. Secondary, shoulder-joint 28, recovered 8, died 20; 71 per cent.: secondary, elbow-joint 3, recovered 2, died 1; secondary, knee-joint 6, died 6.

Consolidated Amputations of the Thigh, collected from Records in the Surgeon General's office, June 1, 1862, to February 1, 1864, prepared by Surgeon A. Baer, under direction of Surgeon Frank Sorrel.

	Upper Third.		Middle Third.		Lower Third		Total.
Circular, Primary	19	11	33	14	42	27	146
Circular, Secondary	3	7	7	14	12	21	64
Flap, Primary	6	4	15	10	35	11	81
Flap, Secondary	3	1	3	9	5	5	26
Method not stated, Primary	15	22	24	21	35	27	144
Method not stated, Secondary	4	16	5	19	14	35	93
Total	50	61	87	87	143	126	554

Besides these statistics, there were twenty-seven cases of amputation of the thigh recorded, but the result not being ascertained, they were excluded from the table.

Consolidated Report of Amputations, from Records in Surgeon General's Office, from October 1st, 1862, to October 1st, 1863.

	Thigh.				Leg.				Arm.				Fore Arm.				Amputations.			
	Cures	Deaths	Result not Stated	Total	Cures	Deaths	Result not Stated	Total	Cures	Deaths	Result not Stated	Total	Cures	Deaths	Result not Stated	Total	Cures	Deaths	Result not Stated	Total
Primary	72	84	126	282	96	48	109	253	118	23	188	329	25	4	30	59	311	159	463	933
Int'm'd'ry	14	24	20	58	13	11	18	42	22	11	9	42	4	1	5	10	53	76	52	152
Secondary	16	65	22	103	18	33	25	76	45	31	28	104	10	4	14	28	94	133	89	312

The large number of results not stated in this table is accounted for by those amputated on the field, some of whom fell into the enemy's hands, others were sent to private hospitals, or were treated in private families, by physicians who were not in the army, and who, therefore, made no report of the cases; while in many cases, only the number of operations are reported, but as the cases are still under treatment, the final result cannot be given.

Consolidated Table of Compound Fracture of the Thigh, treated without Amputation, made up from records in Surgeon General's office, from June 1, 1862, to February 1, 1864, prepared under the direction of Surgeon Sorrel by Surgeon Baer.

		Days..	Shortening of limb in inches.	REMARKS.
Recoveries	116			Besides the foregoing, there are forty-seven undecided cases.
Deaths	105.			
Average period of recov'y		104.		
Greatest period of recov'y		255.		
Least period of recovery.		41.		
Average period of death..		52.		
Greatest period of death..		185.		
Least period of death.....		1.		
Average am't of shortn'g.			1.9	
Greatest am't of shortn'g.			5.	
Least amount of shortn'g.			0.5	

Total number of cases of compound fracture of thigh treated without amputation, 221; recovered 116; 52 per cent. Average period of recovery, 104 days; greatest 255 days, and least period of recovery from compound fracture of thigh, 41 days. Average period when death occurred, 52 days; greatest period, 185 days; least period, one day. Average amount of shortening 1.9 inches; greatest, 5 inches, and least, half an inch.

If these results, which relate to one of the most important questions in military surgery, viz: the propriety of amputation in compound fractures of the femur, the result of gun-shot wounds, be compared with the table of amputations, we find that of 507 cases amputated, 250 recovered; 50 per cent.; and of 221 cases not amputated, 116 recovered; 52 per cent. The chances for life being more than equal, the value of the leg saved should be considered, and the table throws important light upon this point—the average shortening is less than two inches.

The statistics of the Chimborazo hospital, were even more favorable, thus, of 31 cases not amputated, 19 recovered; 61 per cent.

In twenty-two cases of compound comminuted fracture of the femur, treated by Surgeon C. M. B. Maughs, in the Lauderdale general hospital, thirteen recovered, or 59.11 per cent.; and 9, or 40.9 per cent., died.

These statistics are in the main supported by the authority of Legouest, who gives only 123 recoveries in 1664 cases amputated, or only 7 per cent., whilst of 337 cases not amputated, 117, or 31 per cent., recovered.

Consolidated Table of Ligation of Arteries, made up from Records in Surgeon General's Office, from June 1, 1862, to February 1, 1864, by Surgeon H. Baer, under direction of Surgeon F. Sorrel.

NATURE OF OPERATION.	Carotid	Sub-Clavian	Axillary	Brachial	Radial	Ulnar	External Iliac	Femoral	Anterior tibial	Posterior tibial	Total	REMARKS.
PRIMARY.												
Successful				2	3	1		2		1	9	
Unsuccessful								1			1	
SECONDARY.												
Successful	1	3	1	18	8	3		17	2		53	
Unsuccessful	5	4	3	4	1		1	20	3	2	43	
Average period at which hæmorrhage set in for which artery was ligated	18	15	17	17	13	8		20	15	18		Days.
Greatest period	34	22	18	29	18	9		52	19	19		"
Least period	8	8	15	5	8	8		6	6	18		"

This table, as in the case of the preceding consolidated reports, does not include all the ligations performed, but simply all that have been reported with sufficient care. Even in many of the reports the data were so meagre as not to furnish any satisfactory conclusion with regard to the gravity of the case.

A vast number of additional operations were recorded at the Surgeon General's office, but without positive results and are therefore not included in the above table.

The results of these statistics, which are highly creditable to Confederate surgeons, furnish valuable data for comparative examination; these, however, must be deferred for the present.

ART. II.—THE INFLUENCE OF CONSTITUTION IN SYPHILITIC DISEASE. By B. B. KELLY, M.D., New York.

Since the syphilitic virus, when applied to an abraded surface, is followed by effects very different in appearance and gravity, some being well-marked in their specific character, while some are entirely negative, in other words, giving rise to no local or general phenomena whatever, we may reasonably infer that the fault lies not so much in the quality and nature of the poison as in the physical condition, or diathesis of the individual subjected to its action. We have no hesitation, or fear —as far as tainting the system in general is concerned— to inoculate with matter, taken from a Hunterian, or other chancre, a person who has already been the victim, or is yet suffering under the influence of constitutional syphilis. All we need apprehend in either case is the gravity of the local lesion, which is sometimes very serious, giving rise, as it occasionally does, to phagædenic, serpigenous and gangrenous ulcers. This remarkable disparity in effects naturally suggests the question: is the syphilitic virus in all primary sores one and the same? I believe it is, but I would add this qualification to my article of faith, that it is always identical *only* in the very early stage, before it has become adulterated, and its specific quality vitiated and changed by being mixed with the products of the local inflammation which accompanies its development.

The matter of a Hunterian chancre, previous to the induration, is perfectly similar to that of the soft, phagædenic and serpigenous varieties, if examined, or experimented with, in its recent state; but if tried at an advanced period, we find it as inert upon the living tissue as the pus of an ordinary furuncle. The reason of this is obvious. In the indurated, infecting sore, the virus is

soon absorbed into the system and the matter which appears when induration is fully established results from the inflammatory process which necessarily attends every breach of continuity however minute. We see, on the contrary, that the matter of the other forms mentioned, maintains indefinitely its specific character—the virus, instead of undergoing general absorption, remaining stationary and acting as a corrosive irritant upon the tissue with which it is in contact and imparting to the *detritus* which ensues most, if not all, its poisonous properties.

The matter of a suppurating bubo is not always the same, as regards its virulence and specificity; the bubo depending upon the *direct* absorption of syphilitic matter from a primary sore—a soft chancre, for instance—always yields a liquid highly infectious; whereas the adenitis produced by a Hunterian, or infecting sore, when it suppurates—which very rarely happens—gives rise to a purulent discharge entirely analogous to that of an ordinary abscess, being absolutely devoid of all specific and virulent properties. The difference in both cases consists in this, that suppuration in the first example is inevitable and essential, the virus being conducted from the primary sore along the interior of the lymphatic vessels leading to the inguinal glands, which thus become effectually inoculated; whereas it is purely accidental in the other—the glands being sympathetically affected go on to suppuration through the agency of external causes, as chafing, active exercise, walking, etc. This is proved from the fact that constitutional or specific adenitis, located in the other regions of the body little exposed to irritation—those of the neck, for instance—rarely or never, suppurate.

These peculiar phenomena—readily accounted for and perfectly simple in other respects—lose much of their

historic, if not pathological interest, when we turn to another stage of the disease and note as well the variety of the constitutional symptoms as the order in which they make their appearance.

We see, for instance, that rupia, acne, roseola, ecthyma, lepra, psoriasis, etc., follow an infecting chancre, when left to the resources of nature, but very rarely (as far at least as I have observed), do any two of them present themselves simultaneously in the same subject, unless we except the *maculæ*, which are not infrequently their concomitants. Here again the question recurs, does this difference in the external character of the secondary symptoms depend upon some subtle and mysterious quality of the infecting virus? I think there cannot be the slightest reasonable doubt that each variety is but a modification which the poison has undergone during its period of inculation in the system—which modification is itself the direct result of the peculiarity of individual constitutions. We find, almost invariably, that rupia, impetigo, and ecthyma appear in persons of strumous and cachectic habits, that lichen, acne and roseola single out the healthy and robust; while the squamous syphilides usually show their partiality for individuals of an intermediate class. We might, indeed, *â priori* and independently of observation, infer thut such should be the case. This view, moreover, would seem more probable than that which attributes the diversity of the eruptions to an organic and fundamental difference in the virus itself. Do we not see, for instance, that the vaccine lymph, when taken from the same vesicle and applied to children of different constitutions, is followed by different effects? In the healthy it usually runs its course without any serious local or constitutional symptoms; while in scrofulous and delicate subjects we not infrequently find that abscesses, diphtheritic inflammation, eczema and glandu-

lar enlargements supervene on its successful insertion. Mothers invariably attribute all these untoward accidents to the operation of *bad matter;* and designing practitioners and knavish charlatans are not slow in turning the foolish prejudice to their own account. It would be quite as reasonable, and certainly *more honest*, to refer rupia and ecthyma, for instance, to *bad syphilitic virus* rather than to any modifying action impressed upon it while pervading the systems of persons presenting these eruptions.

Inoculation of variola as well as vaccination, fails in producing its ordinary effects in certain constitutions and owing to certain diatheses; malignant pustule and anthrax frequently remain local affections for similar reasons and are capable of being cured by topical applications. Are we then to be surprised that syphilis frequently, and necessarily fails to reduce the general system under the sway of its ruthless dominion and is forced, so to speak, to exhaust its malignity upon circumscribed and barren ground?

Other facts of a kindred order to those mentioned would seem to justify the opinion that the syphilitic virus is identical in its original essence; and that whatever anomalies it presents to the contrary depend upon extrinsic circumstances.

It is noticed that in the monkey, for instance, notwithstanding the facility with which he is inoculated with matter taken from a chancre during a stage of specific progress, the animal seems to enjoy an entire immunity from the common consequences of constitutional infection—secondary, or tertiary symptoms never being known to follow the operation. This, doubtless, is due to the greater plasticity of the blood in the inferior animal, and to the habit they have of licking their sores. In the monkey we also see that the artificial chancre inevitably

tends to cicatrize by a healthy and rapid granulation, thereby insuring the complete expulsion of every molecule of virus, until the animal is at length entirely freed from the unnatural infection. In man the susceptibility of falling a prey to its sceptic and virulent powers is infinitely greater, modified, however, as we have intimated, by individual constitutions.

A good example of this peculiar modification is shown by the manner in which a simple chancre is aggravated by the depraved habits of the debauchee and confirmed drunkard. Ricord has called such sores *œnophagedenic*. The same author asserts that the pultaceous, the serpigenous, the diphtheritic and other varieties of the corroding chancre are the result of hygienic circumstances; and that they depend, in a great measure, for their virulence and obstinacy, upon the diathesis of the patient, be it scrofulous, scorbutic, or cancerous. It is thus we find that the matter taken from the same pustule, the same impure fountain, will produce, when transferred by inoculation, a soft, non-infecting sore in one subject, a Hunterian chancre in another, whereas it may fail to develop anything more serious than an insignificant chancroid vesicle in a third. The different effects, shown in these instances, cannot, certainly, be attributed to a difference in the nature of the infecting virus, since it is furnished from the same source.

A strange peculiarity of the manifestation of syphilis in the human economy is occasionally shown by the manner in which the secondary and tertiary symptoms appear as regards priority.

When the disease is abandoned to nature, secondaries generally follow the Hunterian sore, and are, in turn, regularly succeeded by tertiary symptoms. This may be styled the stereotyped order of their apparition. In exceptional cases, however, this order is reversed, and then

we have tertiaries preceding the secondaries, which may appear, or may not appear, according as the disease is actively treated, or simply left to the resources of nature. This anomaly is fraught with considerable perplexity to the practitioner, and inconvenience, if not danger, to the patient; as the former may not always be able to decide whether tertiaries or secondaries, as the case may be, had already existed; and the latter may be subjected to inadequate or improper medication, and be dismissed, as cured, before the system is fully cleared of the infection and guaranted against a subsequent relapse. According to Ricord this anomaly is due to treatment. "More powerful," he says, "against secondary than tertiary accidents, mercury sometimes prevents the manifestation of the first, and permits that of the others. Thus, after a chancre has been treated by mercury, the first constitutional manifestation may consist of an exostosis, and appear to certain persons, who cannot count except upon their fingers, a secondary accident of a tertiary form, as though it were merely this character which decided its nature. In the same manner, and under the same influences of treatment, secondary accidents may be manifested after the tertiary. * * * * * But all this," he continues, "so far from being disorder, is only an effect of art, and demonstrates its power."

It is to be regretted that the caustic sarcasm of the great specialist is not well supported by logical reasoning. For, if all this, as he would have us believe, were merely an effect of art, it would be infinitely more common as an accident than it really is. How much more probable is the hypothesis than the reversal of the usual order of symptoms depends, rather upon idiosyncrasy, or individual constitution; and that the mercurial treatment, far from being a determining cause, is merely a coincidence. This view, indeed, of the subject, seems to be corrobor-

ated by observations upon the effects of mercury in the treatment of primary syphilis. The great majority of cases do well under the judicious employment of the medicine, both secondaries and tertiaries being prevented by its use. In a few exceptional instances, however, it fails to check the development of either, and even aggravates their character. I remember distinctly a case in point which may serve as a good illistration, and throw some light upon this doubtful subject.

A patient presented herself, some two years ago, with well-marked tertiary symptoms, in the form of periostitis, ulcerated throat, and ozœna. She was immediately put under a course of iodide of potassium, and improved very perceptibly up to a certain period, when, suddenly, and without my being able to account for the extraordinary change, all her symptoms became greatly aggravated. I changed the treatment by substituting mercury. This only made matters much worse. I then prescribed the chlorate of potash, which more than satisfied my most sanguine expectations. The ulceration of the throat and ears rapidly healed; and the patient was dismissed under the impression that no further trouble was to be apprehended. She returned, however, after an interval of a few weeks, presenting as well marked an eruption of syphilitic roseola as ever came under my notice. This from of the disease was treated by the bi-chloride of mercury, and with the most satisfactory results—the patient being quickly relieved of her nocturnal pains, and (what she deemed of far greater importance) her obnoxious eruption.

This case, I consider, is of much interest in a double point of view, as showing the curious anomaly of secondary succeeding tertiary symptoms, after their complete disappearance, and (as it was with good reason supposed), their radical cure; and, again, as demonstrating the utter

failure of mercury and iodide of potassium in the treatment of tertiary symptoms, as they manifested themselves in this particular instance, whereas the subsequent secondaries yielded readily (as, indeed, they generally do), to small doses of the former agent. The patient, I may add, was of a very robust constitution, and strongly disposed to obesity.

The order in which the secondary symptoms usually appear is remarkable, both as showing the influence of constitution in determining the forms of the eruptions and also as fixing the different, yet definite, epochs of their manifestation. On first thought, one would be inclined to suppose that the more cachectic the constitution the more precocious would be the development of the secondary symptoms. This, however—unfortunately for the hypothesis—is not the case. There is, perhaps, but one single exception to the truth of this fact, and that is furnished by the mucous papule, which is generally formed toward the end of the second week following an impure intercourse, either upon the site of the primitive sore, or in other regions of the body. The subjects in whom this accident occurs are usually persons of lymphatic constitutions: and hence we find that roseola and erythema, acne and lichen, are among the foremost fruits of the syphilitic infection; while ecthyma and rupia tardily follow in the rear, the latter scarcely ever making its appearance before the second or third year. The squamous and vesicular eruptions, lepra, psoriasis, pityriasis, eczema, etc., occupy an intermediate place in a chronological point of view. It would seem, indeed, to possess all the force and truth of an aphorism that, the more depraved and altered the constitution, the more protracted will be the first manifestation of the secondary symptoms. Hence their total absence in individuals who have already been the victims of the syphilitic taint, and their great rarity of the immediate descendants of syphilitized parents.

Another fact, of some importance to mention, is that ulceration of the skin does not take place in the exanthematous and squamous syphilides, while it is not at all uncommon in the pustular and tubercular varieties.

Although secondaries of the exanthematous type are the earliest to make their appearance, they are by no means the most frequent, the squamous, the papular, and pustular forms far exceeding them in this respect. This may be due to the circumstance that, in as much as mediocre constitutions outnumber the very good and the very bad, the eruptions which generally affect the former class must necessarily predominate; and hence the comparatively great rarity of erythema and roseola, ecthyma, and rupia, as seen in persons ranked in two extremes of health.

ART. III.—REDUCTION OF DISLOCATION OF HEAD OF FEMUR BY MANIPULATION—DANGER OF HEAD SLIPPING ROUND ACETABULUM UNDER ORDINARY METHOD—NEW METHOD OF OBVIATING SAME. By SAMUEL LOGAN, M.D., Professor of Surgery New Orleans School of Medicine.

The report of a case of dislocation into the thyroid foramen, of long standing, and the method pursued in the reduction by Professor Christopher Johnston, of Baltimore, in the August number of this Journal, is worthy of serious attention, as illustrating one of the difficulties we may expect in many cases of either anterior or posterior dislocation at the ilio-femoral joint. Its peursal suggests to me the propriety of again bringing to the notice of the profession certain views which have been held by me, for some time, concerning the special kind of manipulation most appropriate to this form of luxation, and which first appeared in print in the New Orleans Journal of Medicine, for July, 1868, but which I had announced in my lectures even before that date.

In Professor Johnston's case, after the second attempt a reduction, by the usual method, he found that the head of the femur had "slipped from the thyroid foramen ugder the edge of the acetabulum and lodged on its posterior margin." I suppose the doctor means *behind* its posterior margin; for he goes on to say that "the symptoms were merely those of dislocation into the sciatic notch. A first effort, to remedy this secondary dislocation, by ordinary manipulation, restored the head to the thyroid foramen, from which, however, it was readily made to resume its second position. And now, to prevent further wandering, the pelvis was fixed, and sufficient traction made at the knee to steady the extended thigh, at the same time the leg being bent at a right angle with the thigh, was pulled inward by the foot, so that the femur, rotating the head, slid forward into the acetabulum, but without any snap."

It will be seen that, while the usual plan was being tried, the head actually performed three trips around the lower semicircumference of the acetabulum. We cannot but think that much of the subsequent trouble resulted from this; and we have reason to believe that many of the cases of partial paralysis, resulting from these dislocations, are caused in this way, the head of the bone injuring the great sciatic nerve as well as the other soft tissues. The profession owes its thanks to Dr. Johnston for the honesty with which he reported this case. It illustrates markedly one of the main dangers incident to the ordinary process of reduction by manipulation, and had not the doctor so soon perceived the true bearings of the case, and so promptly called upon his own resources to meet the emergency, still greater injury would probably have been inflicted. If he had continued his efforts according to the stereotyped plan, the head of the bone, with increasing facility, would have repeated its tour as often as the attempts at reduction were made.

I do not propose to criticise the method by which he ultimately succeeded, but intend in this article only to invite his attention and that of the profession at large to the one I have myself suggested and practiced, and which I cannot but think will be found most appropriate.

This danger of the stopping of the head of the femur round the rim of the acetabulum, during the efforts at reduction by manipulation, as ordinarily practiced, was the subject of a paper by G. W. Callender, F.R.C.T. first published in the Lancet and republished in the New Orleans Journal of Medicine, for July, 1868. In this paper Dr. Callender also suggested a plan of procedure by which he thought the danger could be obviated, the particulars of which the reader may find in the paper alluded to.

In the form of a note, appended by myself, in my editorial capacity, to the republication of Dr. Callender's paper (New Orleans Jour. of Med., July, 1868, p. 563), I used the following language: "The danger alluded to by this writer can be readily obviated, without the necessity of extending the limb, by availing ourselves of the anterior border of the pelvis as a fulcrum, by which the head of the femur may be lifted over the rim of the acetabulum. When, in the common method of reduction by manipulation, the thigh has been flexed on the abdomen, the limb is arrested from further flexion by coming in contact, at a point corresponding to about the junction of the upper and middle third of the femur, with that portion of the pelvis just below the anterior superior spine of the ilium, covered of course by the soft parts. If this fact be borne in mind by the surgeon and *forced flexion, to even a slight degree, be combined with, or slightly precede, the rotation*, the femur at about the junction of its upper and middle third is pressed against the border of the ilium as a fulcrum just below the an-

terior superior spine of the same, and the inevitable result is that the head is lifted over the head of the acetabulum, when the slightest rotation—outward for any form of posterior, and inward for any form of anterior, dislocation—will, with the assistance of the muscles, etc., throw the bone into place. The dynamics of this special method of effecting reduction in such cases will be at once perceived by going through the process on the skeleton. I have recently put it in practice with marked success in a case of dislocation on the dorsum of the ilium in the Charity Hospital in this city."

The fact that the above-described plan appeared only in the form of a note to an accepted article in the ournal mentioned, accounts, in all probability, for its not having attracted as much attention as the importance of the subject seems to me to demand, and I have, therefore, thought it best to offer these few remarks for publication in the same journal in which Professor Johnston's case is reported. I will only add, in conclusion, that an analogous idea to the one I have advanced has evidently also occurred to Dr. George Sutton, of Aurora, Indiana. This gentlemen suggests (in the Western Jour. of Med., for Sept., 1868, p. 338), that the head of the femur be lifted over the rim of the acetabulum by means of a fulcrum, composed of a roll of cloth or the arm of an assistant, placed in the groin, for the purpose. Should I ever fail by my plan I shall certainly adopt this suggestion. We must remember, too, that both of these plans bear some resemblance to the old method of using a pillow between the thighs as a falcum for a similar purpose.

ECLECTIC DEPARTMENT.

"Carpere et Colligere."

ART. I.—SPERMATORRHŒA AND IMPOTENCE. Abstract of two lectures, delivered at Bellevue Hospital Medical College, by W. H. VAN BUREN, M.D., Professor of Surgery, with Diseases of the Genito-Urary System.

Dr. Van Buren prefaced his discussion of the functional disorders of the male generative system by a glance at its anatomy. In the course of this he alluded to the uncertainty which still exists concerning the function of the vesiculæ seminales, it being pretty well settled that they furnish a secretion of their own, but doubtful whether they serve also as reservoirs for that of the testes. The urethra, as the common outlet of the urine and the mixed seminal fluid, exemplified the economy of nature, of which many other instances might be found in the body; and it suggested also a most important fact, the intimate connection, functional, and pathological as well as anatomical, which exists between the genital and the urinary organs. For example, it was the commonest thing in the world to see an old ram or bull go about piddling when excited by the proximity of the female; and sexual excitement had often a like effect upon man. Men of loose habits were said to make water very frequently, and those habitually continent more rarely. The proverb *raro mingitur castus* was old enough to have some truth in it.

The physiology of the sexual act in man was essentially this: Friciion applied to the glans penis, which, like other highly sensitive parts, is abundantly supplied, especially about the corona, with the tactile corpuscles of Meissner, produces an excitement that, by reflex action through the spinal and the sympathetic system, stimulates secretion in the testes, the seminal vesicles, and the prostate; and these pour their products into the prostatic sinus. The presence there of the mingled fluids excites a reflex spasmodic contraction of the prostate body, which forcibly ejaculates them, just as the heart contracts under the stimulus of the blood in its cavities.

It is characteristic of man that the mind has a marked

influence over this function, both in stimulating this secretion and exciting the phenomena of erection. With other animals this is not the case. The dog, for example, appears to be excited only by the odor of the secretions of the bitch in heat, which may attract him for miles; and the erection thus excited is but partial, so that coitus is only possible during the relaxed condition of the vulva while the bitch is "proud." It is only after the introduction of the penis that the complete erection occurs, the organ swelling near the root so as to fasten the animals together by atmospheric pressure until the secretion of the seminal fluid can take place; for in the dog this is not secreted until after the sexual act is commenced. In man no such arrangement is necessary; for, his emotions and his imagination having such control of the action of his genital organs, he should be always ready to perform the sexual act under the conditions which call for it.

After these preliminary considerations, the speaker proceeded substantially as follows:

The morbid conditions known popularly as spermatorrhœa, inpotence, loss of manhood, and so on, all mean the same thing. Their pathology is identical. They occur to a greater or less extent in ninety-nine men out of every hundred; for I suppose there is no man perfectly healthy in his genital function, at least I have never seen one in a professional way. My old friend, Dr. Isaacs, examined kidneys for years and never found a healthy kidney in the human subject beyond the age of infancy.

The unnatural mode of life to which we are all born, in this semi-civilized condition of ours, is ill fitted for maintaining the perfect structural and functional integrity of any organ. It is a lucky thing for us that the sexual organs do not come to perfection until there has been made some little advance toward maturity on the part of the brain. This fact is most significant, denoting, beyond a doubt, that the brain should hold this function in control.

With regard to the so-called involuntary seminal emissions, the commonest manifestation of this derangement of the sexual functions, the greatest error prevails. Spermatorrhœa is set down among the diseases in most text books of surgery, and is paraded in the quack advertisements as of the most alarming import. Now I take it upon myself to say that true spermatorrhœa is one of the rarest diseases I have had to encounter in the course

of many years' study of the ailments of our sex. The occurrence of involuntary emission during sleep, or during the second sleep in the morning, when we would better be up and dressing, is in ninety-nine cases out of a hundred, a perfectly natural effort to get rid of a superabundance of seminal fluid, accumulated in the seminal passages under the influence of erotic fancies. Could there be found a man absolutely chaste in act and thought, I do not believe he would have involvutary emissions. I suppose there may be such a man as I know there are chaste women. But, taking men as you will have to find them, in your practice as physicians, it is far safer to assume that no man is chaste, no matter what his position in society, no matter what his pretensions to morality and piety. I would not undervalue my sex, or degrade your ideas of human nature; but you must learn to face the facts. And all I have to say is never trust a man in anything relating to the sexual function; always assume that whatever could be done that was wrong has been done, and I guess you will come pretty near the truth, much as I hope the contrary.

Now, under the influence of the most common aberration from chastity, unchaste thoughts, the seminal secretion is stimulated, the sexual desire begotten, and, the normal means of gratification not being obtained, this seminal emission, as it is called, this phantom of the normal act, occurs; and in this way the source of irritation is for the time removed. Although this may not, perhaps, be called strictly normal, yet it is so very near to it that for all practical purposes it may be assumed to be so. The only question is, how often may these emissions occur without transcending the normal limit? I should say that a healthy man, after puberty and before marriage, might have an emission once a week certainly without passing this limit. And I do not think that twice, or even three times a week, for a man of amorous propensities should be considered abnormal. You see, then, that if spermatorrhœa is to be called a disease, the term must be confined to those cases where the overflow of the secretion is much more frequent than I have just designated. There are such cases, in old sinners, confirmed old bachelors in almost every instance, but they are very rare. As commonly used, the word is unfortunately chosen; for by analogy with words of similar composition, it should imply a discharge abnormal in char-

acter and excessive in amount; whereas, it is used with reference to the simple overflow of a perfectly normal secretion, whose apparent excess is due merely to the stimulation of the genital function, by the patient's habit of thought, creating a supply beyond that for which his social relations have provided adequate relief.

There are certain cases in which the overflow takes place from the prostatic urethra back into the bladder, the semen afterward appearing in the urine. In those men, possibly one or two in ten, who do not have the involuntary nocturnal emissions, I incline to think that the over-distended seminal passages relieve themselves in this way, although I have not as yet been able to demstrate it.

With this so-called spermatorrhœa, amounting to so little in itself, there is unhappily too often associated a a condition of mind which makes it a matter of serious moment. It is a weakness of our sex to be over-sensitive upon everything supposed to pertain to the generative function. A man will be more alarmed by a patch of herpes on his penis, or a trifling varicocele, than if told that he has tubercles in his lungs. And so with any derangement, real or imaginary, of this function; it begets an exaggerated degree of mental disquiet, lowness of spirits, all sorts of uneasy fancies, till the poor victim might have sat for Shakespeare's picture of a despairing lover. This state of mind constitutes the distressing feature in the cases we are now considering. It is not caused by the loss of seminal fluid; for I doubt if any harm comes from this, in spite of the popular impression that it taps a man at his most vital point, and that life and virility ooze out with the escaping semen. Consider, for a moment, what an amount of this secretion the healthy organism is capable of furnishing. It is not an uncommon thing for men in the first years after marriage to have intercourse every night, and sometimes much more frequently. I have known men who have had connection with their wives every night for forty years except during the monthly flow. And yet you will see pale-faced youths thinking that their race is run and that all is lost, because they have one or two emissions a week. It is not the seminal loss, it is ungratified sexual desire, that causes all this mental trouble. It is the penalty that nature imposes upon our sex when it fails to meet her demands, "You shall propagate your species or

you shall have no peace of mind." This is the meaning of nature's language, so far as I have been able to interpret it. So long, then, as man is unable to have the proper use of his sexual organs for long periods he will have mental trouble, although the organs themselves may exhibit but the most trifling functional disturbance. Nature has him in her grip, and she is bound to squeeze him and get something out of him.

It will not do to belittle this function—this most respectable function—in view of its influence upon mankind. You may assume that ninety-nine out of a hundred men, you meet upon Broadway, are bent upon business connected directly or indirectly with the sexual desire. The strongest motive of human action, the most powerful mainspring within us all, is the sexual desire, with the domestic relations which rest upon it. Nature has given it rank higher even than the appetite for food. It is stronger in its influence, controls more men, causes the commission of more crimes and of more good deeds. Considering, then, the hold this function has upon us, it is not surprising that a young man with desire ungratified, and perhaps imagination undisciplined, should find his excess of seminal fluid escaping, hebdomadally in a phantasmal organ. Nor is it strange that, in the prevalent ignorance of the subject, this should present itself as a disease of such fearful proportions to the minds of youthish men. This ignorance and fear are terribly aggravated by the nasty advertisements that defile our newspapers. The profession of the press is not true to itself or the community, in the course it pursues with regard to these advertisements. For the few dollars they bring in, journals otherwise the most respectable prostitute whatever good character they have acquired, allowing matter the most filthy and pernicious to appear under its sanction. It is not long since the religious papers had an unhappy notoriety in this respect; whether they still deserve it I cannot say. Only a few days ago I noticed in one of our best critical weeklies—a paper whose editorial columns are of the highest order, and contain nothing to offend the most fastidious taste—the advertisement of Mrs. Brown's "Metaphysical pamphlet," and in another column that of a notorious specialist whose painted carriage you may see flaunting on Broadway. The time will come, I suppose, when this evil of foul and delusive advertisements will correct

itself; when the public has gained more knowledge and learned to see these matters in their true light; and when all that I have told you, which you do not find in your text-books, will be as much the common property of the profession as our knowledge of wounds or injuries. The French understand these things better than we; and I think the reason they speak of them more freely is not that they are more prurient in their fancies, but that they are in many ways further advanced in civilization.

But at present you will find that many of your patients have been sadly misled and deluded. They come to you only after having suffered months or years of mental anguish; and doubtless many a grief of this sort remains untold; for a young man is slow in coming to a physician about these things. It takes a good deal of manliness to come up and say "I fear I am going to be ruined." Then, again, he doubts whether physicians are really experts in these matters; and perhaps, not very honorable himself, he distrusts their honor.

Looking at the subject as physiological physicians, the remedy for all this trouble is clearly marriage. One reason why there is less of such suffering in this country than others is that early marriages are more in mode among us. We do not meet serious cases of advanced derangements of the sexual function. in the way of imaginary impotency. etc.. except in the men who have been for a long time guilty of taking wrong views of things. and putting off marriage, and becoming confirmed old bachelors. And if they do not come up to the scratch in this respect, they must pay the penalty.

I have endeavored, gentlemen, to set before you, in as honest a way as I could, the exact meaning of that form of derangement of the genital function, popularly known as spermatorrhœa. I have tried to impress upon you that this term is wrongly used, and that, in the great majority of the cases to which it is applied, the abnormal condition amounts simply to this; that the patient's genital organs are subjected to a greater excitement than under his existing social relations can find relief in the natural way; the distress following the non-relief begetting nervous disorder. The nervous symptoms constitute the essential feature of this so-called disease, and the overflow of the seminal fluid is merely a safety valve, preserving from something worse.

For sometimes there is no overflow, and then the man

has to suffer, as in a case which came under my notice when I was assistant to the late Dr. Valentine Mott. A young sailor, captain of a coasting vessel, came into the office one morning, hardly able to walk from great swelling of the testicle, with intense pain. His story was that he had been married a week before sailing and had been absent from home three months. On examination, there proved to be no sign of inflammation about the testicle itself, but the epididymis was distended, hard and excessively tender, and the vas deferens was tender along its course. There was no gonorrhœa, no positive inflammation, simply that very rare condition described by Mr. Curling, as spermatocele, that is, a tumor consisting of spermatic fluid. This good man had probably had very little intercourse with his wife, when at home, and could not help thinking about her while at sea. The result was a secretion of seminal fluid, which, not being evacuated by the overflow, called spermatorrhœa, produced the distention of the seminal passages and the consequent tenderness. This condition requires the same treatment as the spermatorrhœa, so-called. Dr. Mott told this patient to go home to his wife, and come back in a few days if not relieved. He did not come back.

I told you that the term spermatorrhœa is bad, because it implies, like diarrhœa, an excessive and morbid secretion. In these cases there is no morbid secretion whatever. and hardly an excess of the natural secretion; there would be no excess if the persons were in normal relations to the other sex, so as to dispose of the secretion properly. It is in the man who is not in the way of doing this, by the natural result of marriage, that this so-called spermatorrhœa comes on. Then his nervous system becomes more and more involved; he grows more and more unhappy; his mind assumes a cast of sadness and anxiety; which amounts in many cases almost to insanity; he becomes the prey of delusions which are as fixed and positive as those of the insane. These delusions generally take a melancholy shape; they take the form of fears for the future safety and health of the virile function. These patients get the notion, and it is one of the most common ones you will have to contend against, that this loss of seminal fluid is so much loss of life; that a man has just so much seminal fluid, and that in this way the reservoir will soon be emptied, and there's an end on't. They are possessed by this notion, and it must

be your first aim, when they come for treatment, to disabuse them of it. There is a popular idea, you know, that the seminal fluid is secreted in the spinal cord; and it was anciently thought that the form of paralysis, known as ataxia, was due to the loss of this fluid; that the cord was wasted away by it, and ran out. There is nothing too absurd for the brain of a bachelor, passing the time he should spend with a wife, in brooding over this form of disease.

As the patient gets older and does not marry, his seminal losses becomes more frequent and more readily provoked—sometimes very readily, as by thoughts, or the contact of the clothes. Sometimes the seminal fluid escapes, in small quantities, with the urine; but this is rare and happens only in exceptional cases. A condition which occurs much more frequently, however, keeps up the delusion. The frequency of erotic excitement leads to an excess in the secretion of the mucous follicles which stud the urethral walls and are meant to keep the canal properly lubricated. Of this secretion we do not commonly take note; but it mingles with the seminal fluid and with the urine, as you may see in the cloud which settles in healthy urine. Then, again, the prostatic follicles sometimes secrete an excess of their own peculiar product. These secretions are subservient to the genital act, serving to dilute the seminal fluid and augment its amount. Now in the cases I am describing, the secretion being so increased, comes away from the patient when straining at stool—a glairly material, transparent like white of egg, not opaque-white like milk. The loss of this material occurs very generally in these cases; and you must dispel the patient's delusion that it is seminal fluid he is losing. *Demonstrate to him, by the microscope, that it is something very different.* You can, all of you, recognize the elements of the seminal secretion, without the slightest difficulty, under the microscope. If your patient sees you do this, your opinion will have the greater weight with him. You can then explain to him that the source of his anxiety is nothing more than an increase of the secretion of these parts, from ungratified desire; nothing more than the water in the mouth of a hungry man who smells beefsteak. I dare say you have seen the spurt of saliva from the parotid duct in such cases; it is exactly like these emissions, as I understand them. Old men with disease of the prostate often dis-

charge a good deal of the prostatic fluid; in one case, which I recall, the urine was so full of it as to resemble flaxseed tea. But in young men this excessive secretion occurs under the conditions I have detailed.

More serious forms of nervous disease sometims engraft themselves upon this condition of ungratified excitement, if it be prolonged. I have seen epilepsy apparently due to it, as also this very locomotor ataxia and other nervous disorders of a very grave character, to which I could hardly give a name. But such cases are very rare. Among numberless instances of spermatorrhœa, so-called, I have met with very few of these aggravated forms, and these only in confirmed old bachelors and subjects of self-abuse.

There are certain complications of this condition which aggravate its severity and considerably increase its seriousness. Gonorrhœa is one of them. A young man getting gonorrhœa, comes out of it more or less frightened and more or less determined not to get it again. So he falls into a condition more than ever liable to the consequences of ungratified desire, and the remains of the gonorrhœa are apt to make the matter worse, such cases being more likely to show positive lesion in the prostatic portion of the urethra.

Another complication is imaginary impotence. This is very common; real impotence very rare. I should be ashaméd for my sex to say how often I am consulted for this imaginary disorder. It happens generally in this wise: a young man finds he has been suffering from incontinent habits, and tries to be virtuous, as we hope all men do, but his lust gets the better of his resolution and after much pining and long delay, he finds himself in the company of one of the other sex, and through sheer excess of desire, he is utterly unable to gratify it. This condition is as old as the human race. Montaigue well describes it, in one of his letters in 1572, where he speaks of the well-known phenomenon which often occurs to the ardent lover, who, after long pursuit of his mistress: finds himself, on the eve of possession, deprived of the power to enjoy.

Such an experience has a terrible effect upon the mind of the patient. His imagination was already morbid, and this comes upon him as the final blow which crushes him to the ground. His manhood is gone; all his prospects in life are blasted, and he might as well die; it is

just what you will hear in the confessions of your patients. It is the commonest thing in the world for a man to come in to consult you about some vague symptoms. He is uneasy and shy in his manner and does not look you straight in the face; his hand is clammy and cold. Such cases I know so well that I break the ice pretty promptly, and put the patient at his ease. He will generally complain of anything but the real matter about which he is anxious, that being that he is afraid he has lost his sexual power. The story is apt to run, that in youth he was in the habit of abusing himself, until he found out it was wrong, and, of course, stopped it; that he had little to do with the other sex, but at length yielded to overpowering circumstances, and was unfortunate enough to get the gonorrhœa; then he resolved to be continent till he married; but finally opportunity again tempted, and he fell from virtue; and so on.

There are cases where this condition is associated with a frequency of emission that requires attention. Before considering the treatment, however, let us see what is the pathology, whether there is any lesion of tissue? There is nothing the matter with the testicles; they secrete properly; there is no tenderness about them, as a rule, though they are sometimes the seat of vague pain, there being an unnatural degree of sensibility throughout this whole region. But the patient generally suspects nothing wrong about these organs, unless he happens to have varicocele, when he is apt to attribute all his trouble to that. Indeed, there is no obvious lesion for the surgeon to discover, in most cases. But if you take a steel sound, of moderate size, number 10, 11, 12, oil and warm it and pass it carefully into the urethra, you find invariably more or less increase of the normal sensibility of the urethral wall; and this culminates when the point of the sound reaches the prostatic portion of the canal and comes in contact with its floor. I have pointed out to you the place where the centre of the sexual sense lies, so that we may consider it thus demonstrated that there is unnatural sensibility of the mucous surface of the seminal passages, as far as we can reach them.

Now in Curling, in Lallemand's book on Spermatorrhœa, and in some of Gosselin's papers, I have seen accounts of post-mortem examination of the prostatic urethra in exaggerated cases. There are mentioned lesions of the prostate gland, and of the lining membrane of its

ducts; sometimes ulceration of the prostatic urethra; sometimes minute abscesses in the gland; these abscesses occurring with no enlargement of the gland, and apparently as the result of prolonged congestion of the prostatic ducts. These seem to be about the only forms of lesions that occur, and these only at a late period. The probability is very strong that the only lesion of tissue existing in most cases that come under your observation, is a moderate amount of congestion of the mucous floor of the prostatic urethra, at that point where the steel sound excites most pain, and this is in the immediate vicinity of the orifices of the ejaculatory ducts. In one case upon which I operated, by perinæal section, for old stricture from gonorrhœa, I remember that, when we had got into the urethra, the finger passed readily into the bladder, showing how much dilated the urethra had become behind the stricture, and we could feel the verumontanum, or caput gallinaginis, more than a line in height, unusually hard and gristly, become so, no doubt, either from the gonorrhœa or from protracted and ungratified sexual excitement. It is difficult to get at the lesions in this disease, because it does not kill people, just as with the lesions of the elbow-joint which are so very obscure.

So much for the morbid anatomy. Now, upon the ætiology, I think you are prepared to say what causes this affection, with little further remark from me. It is unnatural sexual excitement, whether provoked by the individual himself or the result of external conditions. We are the victims of this function, bound hand and foot, and our only safegard is, as I told you, that our brains are fourteen years old before it is fairly developed, showing that it is nature's intention for the head to govern the tail. Now the testicles can both be taken away without serious impairment of a man's vitality, but it will sadly damage his *morale*. This indicates that the generative function has a powerfully stimulating influence upon the moral force of our nature, that is meant to control it. It is the loss of this control, the giving way to sexual desire, that commonly causes all the trouble.

Masturbation is a subject that cannot escape attention in connection with the ætiology of this so-called spermatorrhœa; but I have very little to say upon it. There is no doubt about the generality of the practice; as little doubt, I think, that it is less harmful to the physique of

the individual than his *morale*. It does its harm to the man's self-respect, by giving him daily proof that his head cannot hold the preëminence that belongs to it. It destroys his manliness, his higher qualities, in this way, and that is the reason the young man cannot look you in the face. That the practice is physically hurtful I am not prepared to admit. I have never seen any very striking evidence of it except this so-called spermatorrhœa, which I told you is a disease of function and of the mind rather than of the body. There is no question that this habit has a vast deal to do with spermatorrhœa. But on the other hand, in our Southern States, in old times, I have seen many an instance where a boy has gratified himself, in the natural way, from the earliest dawning of the sexual appetite, even before puberty; and I have seen much more harm come from excesses of this kind than from masturbation. And, moreover, I have seen bad effects from masturbation, even where there was free access to the natural gratification, among the slaves.

The causes, then, of this functional disease may be summed up in a word—ungratified desire. Whatever begets this desire produces a flow of blood to the prostatic portion of the urethra; and every time this congestion occurs in an unnatural way it leaves behind it a weakened condition of the parts.

The diagnosis of spermatorrhœa involves the diagnosis between false and true impotence. The examination of the discharges under the microscope is probably always a feasible measure, and the one that will best disabuse the mind of a deluded fellow creature, who supposes he is losing semen and spinal marrow, when he is only getting rid of a little urethral mucus. Chemistry, too, may be brought to your aid. The urine is often loaded with an excess of phosphates. I had one case where it was so white with these that it looked like cream, and the poor man was sure his spinal marrow was gone. When a few drops of nitric acid cleared up the fluid, his mind was relieved beyond measure. The cases where the so-called phosphatic diathesis gives the creamy appearance are quite rare, but they do occur.

Time compels us to come to the treatment. The course to be pursued with the patients suffering thus, is not to treat their complaints as light and foolish, not to make a joke of them. It is no joke, in reality; it is a very serious business; and the circumstance whether the young

man falls into the hands of a sensible physician who will be his friend, often settles the question of his usefulness in life. Many a young man throws himself away through the fancy that he is impotent, though he is not likely to confess it except to some old, gray-headed doctor. Your proper way is to hear all that your patient has to say, get all the facts of the case before you, and then tell him that it will be necessary to examine his genital organs, to determine whether he can be cured of his spermatorrhœa and his nervous impotence. You examine the urethra carefully with the sound, and ascertain how far it is normal in sensibility.

A healthy man, in the normal use of his genital organs, shows comparatively little sensibility to an instrument passed with a careful hand. A man suffering under the derangement we are considering will always show more. The style of beginning inspires the patient with confidence in your seriousness; he thinks you a proper person to be trusted; and so when the time comes for giving your opinion and your advice, he will receive them with respect. I know that I can now manage such cases much better than I could twenty years ago; and I suppose it is because I understand better the patients' condition of mind, and really feel a profound sympathy with them, and let them see it. I make no pretense, but listen to them respectfully, asking such questions as may be necessary. I do not say "Do you masturbate?"—a question which I have not put for ten years, because I think there is no occasion. I simply say, "I suppose your genital organs have been subjected to an unnatural excitement, perhaps from going to the ballet with a pretty girl." For this is about as bad in its effect—the important thing is the excitement. After gaining the patient's confidence, I tell him, as honestly and as forcibly as I can, just what is the extent of his trouble, and generally in such a way as to make him believe it. In the first place, I explain to him that his emissions, if not too frequent, are simply the result of a little excess of health; and that very frequently young men, under these circumstances, go and sacrifice their virtue, and find they can do nothing. Often he will say, "I have done that, and that is the chief reason why I am so anxious." I explain that this is only imaginary impotence, and that marriage will cure the whole thing. Often the young man accepts

your advice; and you have made a very happy man moderately happy, and put him on the right track.

But suppose an old lease, a hard nut, comes and tells you, "I can't marry, for I know I am impofent," you must go into that man's case more seriously. It will not do to tell him that his impotence is a delusion; he has tried it too often, and has been too often profoundly mortified. You must say, "You are weak in your genital organs, as shown by this tenderness of your urethra under the sound. There are means to improve this condition, and I will try to make use of them. But for your part, you must keep your thought chaste, and not read lascivious books, etc., etc."

What means shall you employ? I have no faith in medicines. Such cases are always taking phosphorus, strychnia, or some other tonic, but I do not see that it does any good. You must put your patient under the best condition for health. Make him ride on horseback; make him so tired with physical exercise in the air and sunshine, that he will sleep soundly and wake without an emission. Make him eat simple food, and eat nothing after, say, six o'clock in the evening. Advise him not to take wine or strong drink; for strong drink is rarely necessary for a young man; much of it is carried off by the urine, rendering this irritating; and wine, as Shakspeare has it, prompts desire and damages the power of performance. Look out for the function of the bowels—in a word, attend carefully to the patient's hygiene.

Now, what surgical means have we at hand to remedy this affection, of which the only pathology, in the majority of cases, is a little congestion in the prostatic portion of the urethra, associated with a great deal of morbid sensibility, and a too ready excretion of the seminal fluid? The surgical means are such as blunt this unnatural sensibility, this sign of weakness brought about by ungratified desire. The first of them is the occasional passage of a simple steel sound. This, gently done, has the effect of begetting a better feeling about the genital organs, even in old, broken down cases, and in young men, virgin to such treatment, it has a very decided effect, and is often the best of all means for diminishing the sensibility. Pass the sound very gently, and never oftener than twice a week. Tell the patient to think little about his genital organs, to leave them in your hands, and not meddle with them himself.

Where this fails, I have used tannic acid, a drachm to the ounce of simple cerate. I apply it by means of a sound having a half-dozen little saucer-shaped cavities upon its convexity along the part that comes in contact with the prostatic urethra in passing the sound into the bladder. These cavities I fill with the ointment, and wipe the instrument clean, leaving the little cups full. Then, having passed a sound a little large, I pass this, and keep it in the urethra for five of ten minutes, sometimes even longer, but best not so long as to produce spasmodic contraction of the perinæal muscles. This treatment is based on scientific psinciples. I apply this astringent to the congested surfaces, and the result is that the patient, if he follows out the hygienic treatment carefully and honestly, is benefitted, and I have saved him from the hands of the quacks. As a general rule, I do not have to make the application more than two or three times.

There are other cases still more difficult to treat, where the seminal loss is occurring so constantly that the delusion of the patient's mind is kept up, and a prompt remedy is needed. In these cases I employ the old remedy, nitrate of silver; but the cases in which I use it are more and more rare. Into a catheter, fitted with a piston, and having one small hole in its extremity, I draw up three or four drops of a solution of nitrate of silver, sometimes ten grains to the ounce, sometimes stronger, and, having introduced the instrument to the proper point, I expel the fluid. Here I show you Lallemand's instrument. It is passed in so as to bring its point just into the prostatic portion of the urethra; then the stylet—bearing at its end a little cup of strong nitrate of silver ointment, or of soap covered with the powdered nitrate as I have used for years—is pushed out. But this operation I would not advise you to employ, until you are thoroughly familiar with these cases. It is done far too frequently.

The true remedy for the disease is marriage; and, when that fails to cure, you have a serious surgical case, which requires as much judgment for its proper treatment, as much anatomical knowledge and skill to do good and not harm, as almost anything you will find in surgery. I tell you I believe much more harm than good has been done by the use of Lallemand's instrument. I have seen more strictures, more tender urethras, more cases of intense neuralgia of the neck of the bladder produced by it than I can tell you. It is only to

be employed in serious cases, and then very exceptionally. On the contrary, the use of tannic acid, in the way I have described, can be more generally adopted, and I think you will find it usually sufficient.—*The Medical Gazette.*

ART. II.—REPORT OF THE COMMITTEE ON PHARMACY. By THOS. E. JENKINS, M.D., Louisville, Ky.

Oil of Lemon has been met with by C. Lewis Deihl adulterated with 25 per cent. of an oil, which he judges to be purified paraffine oil.

Prof. J. M. Maisch has also observed an adulteration of oil of lemon with petroleum oil, which is recognized by its specific gravity and almost complete insolubility in alcohol.

Capsicum.—The use of capsicum in the treatment of delirium tremens is recommended as efficient and reliable by Dr. Lyons. It produces a powerful stimulant and sedative (?) action, and the latter action, together with the fact that it belongs to the solanaceæ, incline the author to suggest that it may contain a certain volatile alkaloid hitherto undiscovered.

Rhus toxicodendron.—Prof. McDowell employs a solution of caustic potassa as a local application in cases of poisoning by the poison oak, and states that it has never failed to effect a cure. It should be used sufficiently strong to render the skin soapy.

Urtica divica.—Mr. M. Shoemaker, Jr., believes the diuretic properties of the stinging nettle to be dependent on a volatile oil. It does not appear that he has isolated the volatile oil, but he bases his observations on the distillate obtained. Besides the diuretic principle, the herb contains resins, starch, gum, albumen, and sugar.

Wines.—Prof. J. M. Maisch suggests that the native wines grown in the Northern States, generate, during fermentation, a large proportion of acetic acid, and are, therefore, not as applicable to the uses of medicine as are those from the States further South. He found some North Carolina wines well suited for this use, containing 20 per cent. of alcohol. Their usually high sp. gr. was due to a large amount of extractive matter.

Elaterium.—Lr. A. G. Craig reports the case of an old lady (aged 70) who died from the effects of two-fifths of a

grain of elaterium, administered by him during an advanced dropsical condition of the patient. He, therefore, warns physicians against commencing with the dose of elaterium recommended in the U. S. Dispensatory, 12 ed., p. 364.

Assafœtida has been found in the Philadelphia markets adulterated with a mixture of sulphate of lime and a resinous preparation of assafœtida, until upon close examination the inside was found to consist entirely of sulphate of lime. Similarly adulterated myrrh has been observed.

Cinchonas.—The experiments of Dr. Squibb indicate that alcohol (sp. gr. 0.835) is a better menstruum for exhausting the cinchona barks than diluted alcohol. The alcohol yields a larger amount of extract, containing a slightly larger per centage of alkaloids; the extract prepared with alcohol containing 14.1 per cent.; that prepared with dilute alcohol 13.33 per cent. The use of alcohol has the advantage that less heat is required for its concentration, and that the extract produced forms a clear solution in mixtures of alcohol and glycerine, or glycerine containing no more than one-fourth its volume of water. The value of glycerine for preventing deposits in the liquid preparations of the cinchonas is regarded by the author as established. The deposits formed in the tinctures of bark, prepared either with strong or diluted alcohol—contain but a small per centage of the alkaloids, not sufficient to materially alter their character.

Tanacetum vulgare is used by Dr. Uhle with decided advantage as a remedy in epistaxis, and he stated that he has never failed in arresting hæmorrhage immediately.

Digitalis has been successfully employed in the treatment of suppression of urine. It is applied externally as a poultice to the abdomen, in the form of leaves, bruised and mixed with warm water, and in the form of tincture mixed with warm flaxseed poultice.

Salvia officinalis is recommended in the form of decoction for the relief of profuse sweating. A large teaspoonful of the chopped leaves to six fluid ounces of water; boil a few minutes, and, after cooling, filter and sweeten to the taste.

Solanum toberosum.—By experiment, it has been determined that the sweet principle of frozen potatoes does not exist while they are frozen, but is formed on thawing, and that it is uncrystalizable sugar.

Atropa belladonna.—The experiments of Dr. Ogle prompt him to the conclusion that the poison is not absorbed into the system of rabbits. These animals can live upon belladonna alone for a period of six days, and can tolerate enormous doses of atropia.

Nicotiana tabacum.—According to Bottenge, prussic acid is readily detected in tobacco smoke by Braun's picric acid test. The smoke is passed by means of an aspirator through caustic soda solution, contained in a Liebig's bulb tube; on adding a few drops of solution of picric acid to the solution and heating, the characteristic red color of isopurpuric acid is produced. Sulphhydric acid is readily detected by passing the smoke through a solution of nitro-prusside of sodium containing a little ammonia. By the aid of spectral anaylsis, lithium is also detected. (In the smoke?)

Strychnos nux vomica.—Dr. John Bartlet strongly recommends a solution of common salt as an antidote to strychnia poisoning. He reports a number of experiments on dogs, and invariably met with success.

Rhæum Palmatum.—According to experiments by Kubly, the tannic acid of rhubarb (C52 H26 O28) is, by the action of the dilute mineral acids and assimilation of 2 eq. of HO, split into rehic acid (C40 H16 O18) and sugar (C12 H12 O12). For this reason it is not possible that rhubarb can contain gallic acid, as asserted by Brandes and others. The author obtained, by the process of Brandes for obtaining gallic acid from rhubarb, a colorless, crystalline substance of composition (C10 H6 O4), which approximates very closely to that of cantharidine. It is colorless, tasteless, insoluble in ether; nearly insoluble in cold water and cold alcohol, and sparingly soluble only in these menstrua at boiling temperatures. Its solutions are not affected by persalts of iron; it is readily dissolved by alkaline solutions, from which it is again precipitated on addition of acids in excess.

Piper cubeba.—Mr. F. Z. Heydenreich's experiments indicate—

1st. That the diuretic properties of the cubebs reside in the soft resin.

2d. That cubebin, as compared with the other constitents of cubebs, is inert.

3d. That the volatile oil acts as a carminative and stimulant, producing, in large doses, the unpleasant effects of volatile oils having similar properties.

According to Dr. Bernatzik's experiments, neither the volatile oil, cubebin, nor soft resin, possesses any remedial value in the treatment of gonorrhœa, and the remedial value must be attributed to the cubebic acid. He proposes that this acid be used preferably in its pure state, or as *extractum cubebarum resinosum*, or in the form of powdered cubebs from which the oil has been removed.

To detect adulterations of natural with artificial Camphor. It is recommended that a small portion of the suspected article be dissolved in a drop of alcohol on an object glass and allowed to evaporate. The crystals formed will exhibit handsome colors, when viewed by the aid of polarized light, if the camphor is natural; but not, if composed of artificial camphor.

Veratria, in the form of ointment made of 30, 40, or 50 centgrm. of veratria, 25 centgrm. of morphia, and 30 grms. lard, is highly recommended for neuralgia. A cure is commonly effected by rubbing it along the course of the affected nerve, and repeating three or four times at intervals.

Ergota.—Dr. E. R. Squibb and M. S. Wiegand agree that ergot should never be kept on hand in the form of powder, but should always be bruised finely as wanted; a seive of 45 meshes to the inch appears to be fine enough. To pass it through a finer seive (say 60 meshes to the inch) requires the ergot to be extra dry, which will in most cases injure its quality.

Berlant objects to the recognition of ergot in flour by the odor evolved by the action of caustic potassa upon it. He recommends the decomposition of the propylamine of the ergot into marsh gas and hydrocyanic acid as perfectly accurate, and suggests a process for this purpose.

Apis melifica, Honey.—West Indian honey (Cuban), as imported, is never adulterated; domestic honey is occasionally adulterated with starch sugar, but most frequently with cane sugar in the form of syrup. It is customary to flavor adulterated honey with peppermint and rose.

Gadus morrhua, Cod Liver Oil.—A paper on "Lofoden cod liver oil," by M. Houdon. The following are the principal points of interest:

1. Genuine Lofoden oil is true cod liver oil, made from Gadus morrhua.
2. The light yellow oil is not inferior to the brown oil.
3. Oil sold at Bergen is not necessarily Lofoden oil, or even pure cod liver oil, although so called.

4. The relative absence of color, odor, or taste are guarantees that the process of separation has been conducted at low temperatures.

5. The annual supply of new cod liver oil from Norway may be expected in the European markets in July.

In connection with his report on the Boston drug market, Mr. Colcord stated that the article mentioned as medicinal (cod liver) oil was a mixture of cod liver oil and olive oil. (Mr. Colcord is good authority. T. E. J.)

Alkaloids.—The poisonous action of strychnia, brucia, thebaine, and codeia is, according to the experiments of Drs. Brown and Frazier, greatly diminished by the action of iodide of methyl, by which new bodies are formed, which, instead of being strong convulsives, possess, on the contrary, the physiological action of curare. The topical action of morphia is also much diminished by the iodide; its convulsive action is totally destroyed, but its specific action remains.

Carbolate of Quinia has been used with advantage in puerperal diseases and in several typhus cases, and in one of pyæmia. It was administered in the form of pills, and is found that the carbolic acid, combined with quinia, can be given in much larger relative doses than when administered in its isolated form.

Carbolic Acid in form of solution is highly recommended by Dr. Squibb as an application to burns and scalds. In his own case he found immediate relief from its application.

In case of poisoning by carbolic acid, either olive or almond oil, mixed with a little castor oil, after the use of the stomach pump, should be administered. Prof. Pierce recommends 1 p. of carbolic acid mixed with 6 p. of olive oil as an application to burns. It should be applied with lint, and the bandages covered with tin foil.

Picric Acid and its salts have proved very efficacious in the treatment of intermittent fever, where quinia has lost its effect by continuous use.

Tetrachloride of Carbon. is said to be a more dangerous anæsthetic than chloroform. In its action it presents the same four stages, but the second stage is more prolonged and intensified. Its boiling point being considerably higher than that of chloroform, it is eliminated more slowly, and, saturating the nervous centres, it kills more quickly and determinately.

Cyanide of Potassium.—In the gilding department of

the American watch works, finely-powdered proto-sulphate of iron, rubbed up with raw linseed oil, is used as the most effectual remedy for external poisoning by this most virulent poison.

Peroxide of Hydrogen.—Dr. John Day reports a case of diabetes that had resisted all ordinary treatment for three years, and is now rapidly yielding the influence of an ethereal solution of peroxide of hydrogen.

Chlorine.—Sulphuretted hydrogen is a direct antidote to the poisonous effects of the inhalation of chlorine.

Terra alba, used largely for the adulteration of cream of tartar, is, according to Dr. Squibb, prepared in England from sulphate of lime.

White precipitate.—Mr. J. B. Barnes draws attention to the adulteration of white precipitate with chalk. While most of the samples examined by him were pure, one sample contained 94 p. c. of chalk (?).

Bismuth.—It is stated that the high price of bismuth is chiefly owing to the failure of one of the principal mines, and also to its large consumption in the finer qualities of type.

Arsenic.—Arsenic acid exerts, according to MM. Moutard and Martin, a very positive action in pulmonary phthisis. Itis more efficacious in the torpid form than that which is accompanied by fever; but rapid phthisis and the acute granular form undergo no modification by its use. The quantity taken daily need not exceed 2 centigrammes.

Arsenious Acid is used and recommended by Dr. Lisle in the treatment of cerebral congestion and hallucination, for which he considers it a specific. Of 193 cases of hallucination treated by him, 67 per cent. were cured. It is administered in does of 5 to 16 milligrammes 3 times daily.

Galena.—The experiments of Dr. Percy, of London, would indicate that all galena contains not only silver, but also gold. He made a large number of analyses of ores from various sources, and in all cases found these metals. The gold is, however, present in such minute quantities as not to pay for extraction.

Sulphur is used by Dr. Guibourt, of Paris, in the treatment of lead colic with considerable success.

Sulphurous acid is highly recommended by Dr. Dewar in the treatment of various diseases as a general purifier and disinfectant, and as a promotor of good health. His

attention was first attracted to it during the cattle plague, by the increased condition of health of men and animals subjected to its influence. It is valuable in dyspepsia.

Hyposulphites.—D. W. H. Baxter, by his observations, confirms the value of hyposulphites of soda in the treatment of malarial fevers, as first observed by Dr. Leavitt.

Hydrated silicate of magnesia (meerschaum) in fine powder, is recommended by Garraud as a substitute for subnitrate of bismuth in epidemic or obstinate forms of diarrhœa. It acts probably by its absorbent properties, and is administered in doses of 4 to 10 grains daily, suspended in water.

Castile Soap.—Vock notices a sample of castil soap, not distinguishable by physical appearances from the best article, which contained 29 per cent. of carbonate of lime.

Narceina, according to M. Limic, possesses the strongest narcotic power of all the alkaloids of opium. It diminishes pain, suppresses the flow of urine, and causes relaxation, instead of constipation, of the bowels.

Water.—Waukelyn shows that the process usually pursued for the determination of organic matter in water—by evaporation and elementary analysis of the residue—gives incorrect results, as most of the organic matter is thereby volatilized. The deleterious constituents of water contain nitrogen, which, on evaporation, is driven of in the form of ammonia. The author proposes that more correct results would be arrived at by determining the amount of ammonia produced during the distillation of a given quantity of water.

Bœettger has found all distilled water to be contaminated with carbonate of ammonia, which may be removed by redistillation, after the addition of a few drops of sulphuric acid. He attributes to the presence of this carbonate the property of distilled water to attack chem. pure lead foil, which is not affected when the water has been redistilled from sulphuric acid (? ?).

How to Test the Purity of Water.—It is of importance to be able to test the quality of water, not only when for special purposes absolutely pure water is required, but even in such cases where such purity is not requisite, it may be of great interest to ascertain of what the impurities consist.

Pure water must satisfy the following conditions:

1. It must leave no residue whatever when evaporated in a clean porcelain or platina dish.

2. It must form no precipitate with a solution of nitrate of silver, which would indicate common salt, some other chloride, or hydrochloric acid.

3. It must not precipitate with a solution of chloride of barium, which would indicate a sulphate or sulphuric acid.

4. It must form no precipitate with oxalate of ammonia, as this would indicate some soluble salt of lime or other alkaline earth.

5. It must not assume any dark or other shade of color when passing sulphuretted hydrogen gas through it, or mixing it with the solution of a sulphide salt, as this would indicate the presence of lead, iron, or some other heavy metal.

6. It must not become milky on the addition of lime water, or a clear solution of acetate of lead; this would indicate carbonic acid.

7. It must not discolor, by adding solution of chloride of gold, which discoloring would indicate the presence of organic substances. When boiling water with chloride of gold, the least trace of organic matter will reduce the gold and color the water brown.

Results of these Experiments:—1. Almost all spring waters are found to leave a residue upon evaporation.

2. Common salt is found not only in most springs and rivers, but even in rain water, many miles inland, when the wind blows from the ocean.

3. Sulphuric acid and sulphates are found in many springs; the Oak Orchard Springs, of New York, for instance, are very rich in the free acid.

4. Waters from lime regions all contain lime in large quantities, and, in fact, this is the most common impurity of spring waters.

5. Iron is contained in large quantities in the so-called chalybeate springs; also copper and other metals are encountered; lead, incidentally, by the lead tubes through which it is often made to pass.

6. Carbonic acid is the most common impurity; even distilled water is not always free from it. Water will naturally absorb carbonic acid gas from the atmosphere, which always contains it; its principal source of supply being derived from the exhalations of men and animals.

7. Organic substances are often found in the waters of running brooks, streams, and rivers, and are of course obtained from the vegetation and animals in the water itself, and from the shores along which it floats.

ANALYTICAL DEPARTMENT

"Qui e nuce nucleum esse vult, frangit nucem."—PLAUTUS.

ART. I.—ANALYSIS OF VARIOUS ARTICLES. Published in the Medical Times and Gazette, the British Medical Journal and the London Lancet. (Original copies.) By PROF. JAS. M. HOLLOWAY, M.D., Associate Editor.

The great want of opinions based upon the clinical experience of European surgeons as to the therapeutic merits of carbolic acid in the treatment of severe surgical cases, justifies the publication, without abridgement, of the following extract from the London Lancet in this department of the Journal:

At the annual meeting of the British Medical Association assembled in the Philosophical Hall to hear the Address in Surgery by Mr. Nunneley, who, after some introductory remarks upon the labors of those who had preceded him, and on the bearing of abstract science on the practical improvement of the healing art, went on to speak of the more immediate bearing of good surgery upon the comfort and well-being of the public. He dwelt first upon the advances in accuracy of diagnosis that have been gained by the employment of new and improved instruments of research, such as the stethoscope, the microscope, the ophthalmoscope, the laryngoscope, the endoscope, the sphygmograph, and the thermometer; and then passed on to glance at the pathology of thrombosis and embolism, of pyæmia, and of dropsy, in the latter case with special reference to the difference between ovarian tumor and ascites, and the successful removal of the former by operative means. He next proceeded to notice some of the diseases in which modern surgery has gained its most conspicuous triumphs. In reference to stricture of the urethra, he bestowed a well-merited eulogium upon Mr. Barnard Holt, whose statements he fully endorsed from the results of his own experience. In reference to ophthalmic surgery he spoke somewhat in the tone of a spectator of, rather than an actor in, the present condition of this branch of the art, but still expressed in weighty and well-considered words, the importance of a more patient investigation of ophthalmoscopic appearances than is always given. The operations for recto-

vaginal and vesico-vaginal fistula, and the modern improvements in lithotrity, were next adverted to; and then the speaker came to deal with a procedure in which much has been due to his own skill and courage—the removal of the entire tongue. Plastic operations next received their share of attention; and then fractures of the spine, and the question of trephining the vertebræ, were dealt with at some length. Diseases of the joints, and the present state of knowledge with regard to their excision, were next discussed. So far the address was little more than a counting up of gains; but in the next matter handled, the mode of arresting bleeding from a wounded artery, Mr. Nunneley was called upon to enter on debatable ground. Briefly we may say that he fully admitted the occasional, or even the frequent efficacy of torsion and of acu-pressure, but that he thought these modes wanting in the full security which the surgeon should strive to obtain. The application of movable forceps he believed to be unobjectionable, and in his own hands it had been always successful. He expressed an intention, in the first suitable case of aneurism that fell under his notice, of endeavoring to arrest the circulation by the temporary application of forceps to the exposed arterial trunk. The next and last subject noticed was, however, that which will attract the most notice in the present day, the so-called "Antiseptic Treatment of Wounds." He entered, with much care and fullness, into the "organic germ" theory, and into the doctrines and researches of Pasteur and his followers, and gave at some length his own reasons for disbelieving the conclusions to which these doctrines lead. He denounced, as *idola theatri*, the beliefs that carbolic acid is a specific against purulent infection, and that it acts by destroying septic germs; and after pointing out some of the clinical objections that the advocates of the treatment should be prepared to overcome, he brought the Address to a conclusion by the following practical illustration of the grounds of his opinion: That wounds, whether simply incised or lacerated and contused, often do well when dressed with carbolic acid, is perfectly true; but that they do better than wounds differently treated, I deny. It is useless to bring forward cases and compare them with other cases, where the circumstances are altogether different. In private practice, as well as in large hospitals, especially in the latter, circumstances so vary, that to decide by a name

alone is worse than useless. Every surgeon knows that, besides the individual varieties of age, constitution, condition, habits of life, the mode of receiving the injury or disease, there is a general law affecting all. At one time all his operations do well; he hardly loses a case, whatever the operation may be; and at the same time all wounds heal quickly and well, without suppuration; or, if pus does form, it is limited and laudable; while, at another time, precisely similar cases do as badly, so that even very trivial wounds and operations are followed by death. In our infirmary, a reference to the records of operations will show this difference in a striking manner; and everybody also knows quite well that at such times certain erysipeloid diseases are prevalent in the district, and that patients without wounds will fall into a bad condition, and not unfrequently exhibit similar constitutional symptoms. There are undoubtedly phases of unhealthy atmospheric (or, I would rather suppose, telluric) influences, which, in spite of every known hygienic precaution, will make their influence most grievously felt. Hospitals have not unfrequently had to be wholly or in part temporarily closed from this cause. Therefore, to get a fair comparison of the results of any particular treatment, the same class of cases should be treated at the same time and place. This I have carried out. During the last three years, since "the antiseptic treatment" has been in vogue, I have not allowed one of my patients to be treated with carbolic acid: while my colleagues have very extensively employed it, and I may say, at least at one time, possessing the full amount of faith necessary for securing success, fairly tried it. The result is, that my cases without it are as good as theirs with it. They have had some capital cases with it; but I am confident I am not in the least over-stating facts when I declare that for every successful case with it I can show one as good without it. This I consider to be a fair comparison, as the class of cases and other circumstances have been identical. Had I during this time found their success with the antiseptic treatment was greater than mine without it, I gladly should have availed myself of it; but I did not. On the other hand, as an additional proof that it has not been so, it may be mentioned that lately the omission of it, even in large operations, has been more frequent, until now its employment has become the exception, instead of the rule; which, had any marked

benefit resulted from its use, most certainly would not have happened. Had carefully covering the cut surfaces with carbolic acid yielded great benefit, we should not have witnessed many large stumps left entirely exposed to the air, without any covering whatever upon them. That the two plans are wide as the poles asunder, is obvious to every one. If freely exposed stumps heal up readily and well, it must be at once apparent that those which do so who most elaborately swathed in carbolised wrappings, do so rather in spite of, than as a consequence of, them.

One word more, and I have done. I have spoken plainly on the antiseptic treatment, because I have felt decidedly. Let me, however, not be misunderstood. I have no other object in view than the advance of our profession. I willingly pay deference to, and acknowledge with thanks as warm and as cordial as those who have believed and adopted the antiseptic treatment, what good has been done, and I trust will still be done, by some of those who have been the most decided advocates of the method. To them I would say, in the words which Shakespeare puts into the mouth of Brutus when speaking in the capitol to the Roman people over the dead body of Cæsar, "If there be any in this assembly, any dear friend of Cæsar's, to him I say that Brutus' love to Cæsar was no less than his. If then that friend demand why Brutus rose against Cæsar, this is my answer? Not that I loved Cæsar less, but that I loved Rome more." So would I say, not that I valued their works and labors less, but that I value surgical science more. When I believe doctrines and practice to be true, I venture to acknowledge their value; but when I am convinced that they are wrong and injurious, I presume to say so.

CLINICAL RECORDS.

"Ex Principiis, nascitur probabilitas: ex factis, vero veritas."

ART. I.—ON THE VALUE OF HYPODERMIC INJECTIONS OF MORPHIA IN OBSTETRIC PRACTICE. By O. HENDRICK, M.D., Macon, Mississippi.

In a recent number of the American Journal of Medical Sciences, January, 1869, there is a notice of an inter-

esting paper read before the Obstetrical Society of Leipzig, by Dr. Korman, giving some favorable results obtained from the subcutaneous use of morphine in obstetric practice.

For several years previous to my having seen the notice, I have persued a similar course for alleviating the pains of labor and the accomplishment of other desirable ends. I have contemplated communicating the results of my observations, but have been prevented from doing so in consequence of unremitting professional labor during the last two unprecedented sickly years, through which we have just passed.

Having frequently observed that morphine, given for the purpose of preventing abortion, fails to arrest the pains of labor when it has been once fully inaugurated, I was induced to use it hypodermically, in excessively painful labors, especially in the dilatory stage, with the view of mitigating the pains. In all cases in which the pains are very acute, and represented by the patient to be intolerable, it has had the effect of rendering them much milder, without materially interrupting the progress of the labor. When once under the influence of it, the patient complains no more of the severity of the pains, takes courage, bears her labor patiently and engages in her task vigorously, with renewed hope and energy. But a few moments before its administration, she may be suffering intense agony, as is often indicated by the usual expression, "I can endure it no longer, I shall surely die." As the morphia begins to exert its influence, all nervous agitation ceases; she becomes more calm, and after each recurrence of pain, she is profuse in heartfelt expressions of gratitude, for the relief afforded by its facilitating effects upon the progress of the labor. Appreciable dilatation takes place in a very short time after the remedy is given, in cases which have been, from

rigidity of the mouth of the womb, stationary for several hours.

The class of cases in which I have used it most, and to which it is specially applicable, is that in which there is a rigid state of the os uteri. It is particularly adapted to cases in which there has been an early escape of the amniotic liquid, and the dilatation has to be made by the head of the child, without the aid of the natural dilator, the bag of water. In cases of abortion, where there is a thick and undeveloped os, and tne strong retentive fibres of the neck, offer great resistance to the passage of the fœtus, it exerts a favorable influence.

After labor has actively commenced, ¼ grain of morphia, dissolved in a few drops of water, should be injected into the arm (or any other suitable point that may be selected), which is usually sufficient. After-pains, with which multiparæ suffer much, rarely occur after its use in this way, during labor, and when they do, it is a speedy and efficient remedy. No derangement of the contractile force of the womb follows labor with alternate contractions and relaxations. It promotes the tonic contraction and condensation of the organ which closes the mouths of the uterine vessels and puts a stop to the oozing of blood in the cavity of the womb. It is a security against hæmorrhage, and also affords protection from puerperal fever, abrasions of the uterine and vaginal mucus membrane and other diseases incident to the puerperal state, resulting from putrefaction of blood coagula and acrid accumulations. The disagreeable fetor of the lying-in chamber, caused by the putrefaction of retained coagula, is rarely observed.

The advantages obtainsd are: First. alleviation of pain. Second, shortens the duration of labor, by expediting the dilatory and expulsive stages. Third, prevents after-pains. Fourth, secnrity from hæmorrhage. Fifth, protection from puerperal diseases.

ART. II.—TUMOR OF THE EYEBALL. By J. GARDNER, M.D., Bedford, Indiana.

Wm. Bird, aged 36, farmer, of average stature and spare, sinewy frame, presented himself to me at Bedford, Indiana, for treatment in August, 1867, for tumor of eyeball. The tumor occupied about half of the cornea, on the inner side and a considerable portion of the conjunctiva. It was partly divided into two lobules, the lower being somewhat the larger; the whole mass being somewhat over four lines in its long diameter and two and a half in its transverse. It was of a white pearly lustre, studded with a minute vascular points and projected forward with a convexity about as great as the half of a medium sized bean, which it resembled in form. The entire conjunctiva was much congested from the irritation set up by its mechanical action, and its vessels were in a varicose condition. The axis of vision was divergent in that eye, and sight impaired. Complained of great annoyance from it and from an almost constant lachrymal flow. Stated that it pained him sometimes; generally at night. Placed him under the influence of chloroform, in a recumbent posture and attempted removal with scalpel and toothed forceps. Found that it was so soft and easily broken down that the forceps cut through it when I attempted to grasp it, and it glided from before the knife without being cut. The bleeding was copious upon the slightest touch of an instrument. I finally took the curved scissors, which I found to do the work satisfactorily and completed the operation. After finishing with the scissors I took solid nitrate of silver and touched the mouths of the bleeding vessels and some small portions of the tumor which I was unable to grasp with the scissors. The hæmorrhage ceased at once, and after two days, I again touched them with the

nitrate of silver and a cure was completed. Little inflammation followed the operation, which speedily disappeared under salines and water dressings. From the appearance of the structure of the tumor I could form no definite idea of its character, and therefore subjected it to a careful microscopic examination and obtained the following results: The pieces of tumor were mostly spongy areolar tissue much shrunken from the extravasation of the blood they had contained, and through every part of the fragments were a great number of microscopic hairs, which were altogether invisible to the unaided eye. They possessed all of the characteristics of other hairs except size and pigment, they being of an amber tint and perfectly transparent. The sides of them had marks of erosion, and the imbrications in some places seemed to be eaten away. In no place did the hairs, when in situ, project beyond the surface of the tumor a sufficient distance to make themselves manifest. There was no epithelium in the substance of the tumor, but there were some cells from the conjunctiva mixed with the blood. It had also some oil globules in it. Such growths must, I imagine, be very rare, as I never saw one before. Neither have any of my medical friends whom I have consulted. The eye at the present time is entirely well, a year and a half from time of operation.

ART. III.—BROMIDE OF POTASSIUM IN INFLAMMATORY DISEASES OF THE FEMALE SEXUAL ORGANS. By W. DOUGLAS MORTON, M.D., Shelby county, Ky.

About the first of last March I took under treatment Mrs. B., æt. about 36, and mother of five children, the youngest of whom is five years old. Her most prominent symptoms were great feebleness and anæmia, brought on immediately by an exceedingly profuse menorrhagia—

hæmorrhages occurring two or three times monthly, and in such quantity as imminently to threaten life. From the history she gave of herself, I was led to conclude she had been for some time a sufferer with inflammatory disease of the uterine neck; yet, as certain considerations rendered it desirable that I should refrain from such examination as alone could *positively* inform me, I was without the proper light to guide me. A clearly indicated course, however, was to remove the tendency to hæmorrhage; and to this end I tried to get such a spine-bag for the application of warm water, as had been highly recommended in a former issue of this Journal; but failed. Having a good degree of confidence in the bromide of potassium as an *antaphrodisiac*, I hoped by its means, at least, to depress in some degree that stimulus to uterine action, which is physiological, and thus to remove a great cause of exacerbation.

I made a solution of the salt in camphor water, of the strength of five grains to the drachm, and ordered it to be used, in teaspoonfull doses, three times a day—commencing a few days before her next menstrual season. Patient followed my directions and her catamenia, which appeared on the fourth day after commencing the medicine, were of normal character. To my knowledge she used the medicine once again with similar favorable consequences. Saved from the debilitating effects of profuse and frequent hæmorrhages, she rapidly gained flesh and strength, being able by the early summer to take a trip of forty miles in a rockaway. As far as I have learned, her health has been good up to this time, (September 3.) I saw her at the Shelby county fair, a few days ago, in a physical condition not by any means inconsistent with enjoyment.

Case .2—Mrs. H., a lady about forty-five years of age, came under my treatment three weeks ago. She had

also been a sufferer from menorrhagia, with symptoms almost pathognomonic of considerable uterine inflammation; intense lumbo-sacral pain, pains referred to the regions of the ovaries and lower abdomen, with constant gastric derangement and headache. She had suffered from hæmorrhage several times, monthly, and was much reduced. She offered no objection to the use of a speculum, but wishing to give the iodide of potassium a fair trial and being indisposed to use that instrument except as a last resort, I determined to wait. I put her upon the salt and up to the present time, she has escaped loss of blood, having undergone a decided improvement in other symptoms.

The two cases presented, afford insufficient data, alone to lead to the conclusion that bromide of potassium is especially active in controlling uterine inflammation; yet their behavior has been thoroughly in keeping with a well-grounded theory of the action of this drug. The obstinate resistance to treatment we often meet with in cases of inflamed uterus is evidently a consequence of the physiological excitement and congestion to which that organ is subject. If, then, it appears possible to remove the cause, operating, in bringing about this condition through constitutional treatment, a course is plainly pointed out to us, which, although it may be insufficient alone, especially in cases of ulcerated os, nevertheless affords a most useful aid to measures addressed topically. After thorough and systematic courses of experiment with bromide of potassium *two* modes of action have been ascribed to it—*nervous sedative and antaphrodisiac;* indeed, it may regarded as a fair type of one or the other of the classes of medicine, so denominated. I am, however, strongly inclined, both by facts and analogy, to regard the antaphrodisiac effects as only special manifestations of its action as a nerve sedative.

Now let us consider the *rationale* of its application as a remedy for diseases of the genitalia. It may be regarded as a physiological truth that the ovaries are endowed with a *special* vitality, and the Graäfian vesicles with an *inherent* law of development by which successive crops of ova are matured, and that this development constitutes the point of origin of the stimulus to erethism of the genitalia, that the connection between cause and effect is a *reflex nervous action.* Now, no property of bromide of potassium is more certainly proven to exist than its power to allay *peripheral* irritability *from whatever cause it may arise;* its hypnotic action is due to this property, being an hypotic only in a negative sense, removing causes which prevent sleep rather than positively producing it. Bromide of potassium has been successfully used as a controller of abnormally intense sexual irritability in the male; and when we reflect upon the many points of similitude in the earliest appearances of the genital organs of sexes and in their subsequent progress of development; when we consider, moreover, that the differences in the fully developed generative systems of the male and female relate chiefly to *mechanical* functions, and that the condition necessary to fruitful intercourse is vascular congestion in both, we are forced to the conclusion that a cause operative in one case, and productive of certain effects is operative in the other and productive of the same. The true point of departure from sexual similarity lies in the *germs of reproduction*, and does not bear upon the point under consideration. An objection may be offered to the use of bromide of potassium, based upon the idea that if its tendency is to prevent congestion of the female genital organs, it might injuriously affect the menstrual function; but this is removed in consideration of the fact that morbid phenomena attendant upon *accidental* amenorrhœa (to use Burnett's distinction) and dys-

menorrhœa, spring from abnormally increased congestion; in these cases the stimulus has been exerted and the uterus has been affected responsively, but by some local cause *excretion* has been prevented or rendered difficul and painful. In the use of bromide of potassium the design is to modify the stimulus itself. Whether, in accomplishing this end, the nervous connection is immediately affected and made incapable of conducting the impulse, or that we work upon the *source* of the impulse, is a question which does not appear especially pertinent to the point; its answer, however, might throw light upon the mode of action of antaphrodisiac medicines.

ORIGINAL CORRESPONDENCE.

"Sit mihi Fas scribere audita."

PARIS, September, 1869.

I gave an account of Verneuil's successful treatment of complicated fractures, some time ago in the London Medical Times and Gazette, but as I think his an excellent practice, which, as it presents complications, shortens the time of cure, I can not go amiss in calling your attention to it. The plan is simple: The moment a complicated fracture is brought into the hospital, the wound is covered with gold beater's skin and collodion, which secures perfect occlusion, while it does not interfere in the least with the application of the starch bandage or whatever appliances the surgeon may see proper to adopt in the case. The success obtained by this method of closing wounds is astonishing, and those of our surgeons at home who may give it a trial will not regret it. This baudruche and collodion can even be left in situ until the complete consolidation of the bones, as I have seen Ver-

neuil do in two cases of complicated fracture of the tibia; but generally, it should be removed and put on afresh every four or six days, for the cleaning of the wound. In America, where the complications of fractures are less to be dreaded than in our hospitals here, these precautions may not be necessary; but even there it will lessen the chances for erysipelas and septicæmia.

I assisted a few days ago at an autopsy practiced at the Midi Hospital, (the hospital for venereal diseases of men exclusively, that is to say primary and secondary symptoms only, for when the disease has lasted some time or tertiary symptoms have come up the patients are generally sent to the St. Louis hospital and are classed under the head of skin diseases), on a subject dead from peritonitis, consecutive to a blenorrhagic epididymitis of the right side.

I may here state that the same danger does not attend epididymitis of a non-blenorrhagic character—such as is produced from strains, traumatismus, from masturbation or excess of coition—in these the induration is the same to the touch, but the plastic exudation has not the same seat; it is never inside of the epididymis, and even rarely between the different anatomical layers of this canal, but simply on the outside, in the loose cellular tissue surrounding it and the commencement of the vas deferens.

This explains why in the non-blenorrhagic orchitis the excretion of the seminal fluid (and consequently the fecundating elements, the spermatozoa,) goes on undisturbed. The most this induration on the out side of the epididymis can do, is to compress the duct, which, however, is not sufficient to prevent the secreted fluid from reaching the seminal vesicles.

Out of thirty-one bilateral epididymites, of old date, which have been observed by M. Liégeois, and in which

he been able to make a microscopical examination of the seminal fluid, he has found the total absence of spermatic filaments twenty-five times, and only six times the presence of spermatozoa. In each one of these last six patients, excepting one, where the origin was doubtful, the disease was unquestionably of a non-blenorrhagic character.

Godart was of the opinion that these epididymary indurations, which cause an obliteration of the canal, can always be cured by the iodide of potassium treatment. I have seen patients, where this treatment, both in and externally administered, and for a long time continued, proved beneficial, but I have also observecd patients where the induration still persisted, in spite of this treatment, and with it an absence of animalculi whenever the affection was double.

In double syphilitic orchitis it is otherwise; here the iodine treatment not only aids in the resorption of the plastic effusion, but with it also we generally notice a return of the spermatic functions.

I have digressed from the narration of my autopsy, but not altogether away from the subject. I only have to add that the seminal vesicles corresponding to the side of the orchitis (the right) was found filled with pus. The seminiferous tubes of both testicles contained spermatic grannlations and some spermatozoa. The cavity of the abdomen showed the ordinary signs of peritonitis.

The elections, fortunately they only occur once every seven years, which have disturbed all Paris, more or less, have also had their influence in the Latin quarter, the hot house of rebellion. Twice, two days each time, the lectures were interrupted because the school was pressed into the service, as an election bureau, where the voters of that precinct came to deposit their votes for the Republican candidate.

These extra holidays, added to the exciting times already existing, gave to the more boisterous students the occasion to sing, louder than necessary, the forbidden Marseillaise, and some few of them ended in the lock-up.

Not many weeks ago we had marching up and down before the college a band of policemen, and around the corner another squadron, about eighty in all, (but no telling how many more within hearing of the whistle) just because the students saw proper to hiss down a certain Professor, who makes himself obnoxious at the examinations. Namely, if a student in passing the doctorate is refused at any one of the five examinations, he is put back for three months; but, if for the second time he fails to pass a satisfactory examination, he loses six months, and each time the matriculation fee of ninety francs. M. Regnauld, Professor of Pharmacology, more severe than necessary, refused three students at the third examination for the third time, (three professors always examine three students.) The consequence was a disturbance every time he attempted to deliver his lectures; he was hissed and hooted until forced to leave the lecture room. This occurred five successive times when the Dean of the Faculty, (M. Wurtz), appointed ten o'clock in the morning, as the hour for the lecture—a time when nearly everybody is at the hospital—changed the room to another part of the building, closed the large entrance of the court, and forced those of the students who wished to attend the lectures to inscribe their names in a book as they passed through the small side entrance of the college.

The part of the students who were unwilling to follow this rule of the Dean collected in front of the large iron gate, which had been closed to them, attempted to tear it down, and actually succeeded in breaking off one of the bars. This brought several dozen policemen, who had

been notified by the Dean, and as usual, some of the students got the worst of it. It did not prevent a great many of them, however, from forcing the small side entrance and getting into the court-yard—sacred ground, and where no policeman dare show himself—so as to break the windows of the room where Regnauld was lecturing to a class of four students, and one of these latter got a thrashing, as he ran out, just because he had attended the lecture.

You see our students are not the quiet, governable set that you have to deal with in America. The attempt is being made to change the third examination of the Doctorate (chemistry, physics, botany, zoology, etc., etc.,) and place in its stead a clinical one. The students say, to be obliged to pass those branches once at the preliminary examinations is sufficient, without having to go over them again in the midst of studies which are foreign to these collateral sciences. I have no idea that the faculty will listen to such dictations. R. R. Good.

REVIEWS AND BIBLIOGRAPHICAL NOTICES

"Judex Damnatur cum nocens Absolvitur."

The Neuroses of the Skin: Their Pathology and Treatment. By Howard F. Damon, A.M., M.D. Philadelphia: J. B. Lippincott & Co. 1868. 1 vol. 8vo., pp. 115.

This book is announced by the author as an "independent treatise," yet, intended to be the first of a series which shall include the whole domain of cutaneous medicine. The second volume, devoted to the structural lesions of the skin, has also appeared in print, and we hope, at some future time, to review it in these pages.

Dr. Damon informs the reader that this monograph embraces "part of a new system of classification;" this

is much to be regretted, for systems of classification are already too numerous. The desire of each author to establish a claim to originality, by giving a "new classification" has been very detrimental to the interests of dermatology. These numerous "systems" discourage the student, disgust practical men and have only served to involve the whole subject of cutaneous pathology in inextricable confusion.

Our dismay at Dr. Damon's inflicting upon us a new system of classification has been much relieved, for, although it is as bad as a good many of them and not as good as many others, yet it has, at all events, the merit of being not a new evil—it is old.

Dr. Damon says: "The following is our classification of skin diseases. Chapter I—Neuroses. Chapter II—Functional Diseases of the Cutaneous Glands. Chapter III—Inflammations of the Skin. Chapter IV—Structural Lesions of the Skin."

The classification of Rayer was inflammatory affections; non-inflammatory affections; lesions of secreting functions; neuroses, faulty structure and degenerations. This seems to have been overlooked by Dr. D., and such an oversight appears strange in the face of his statement that "all accessible sources of information have been consulted," and the confidently expressed hope "that nothing of importance has been overlooked."

There is no branch of practical medicine so scantily represented in American medical literature as dermatology. In this country it has certainly not received the attention its importance so justly claims. We are therefore glad to see contributions to this department of our science and we heartily commend the zeal and labor of our author. But we scarcely need more "hand-books" than are already before the medical public. Wilson, (student's book), Neligan, Hillier, Fox and others, sup-

ply all the wants of the student, and the author has signally failed to make the present volume anything more than a mere manual. The beautiful and lucid descriptions of cutaneous diseases, which form such an attractive and valuable feature of Neligan's treatise are no where to be found in Dr. D.'s book.

Yet something more might have been hoped from a monograph "intended to supply all that is now positively known of the first (the neuroses) of these classes of cutaneous affections." We naturally expected something more than brief outlines in a volume, which, with the rest of the series, the author evidently intended, should embrace the whole field of cutaneous pathology; a work, that in his own words, is "to supply all that is positively known on the subject," and that promises to be both voluminous and expensive.

Every writer is at liberty to publish and advocate his own peculiar views, and this no doubt was the motive of the author. But he has certainly not made clear to us the propriety of instituting this class of neuroses. For when the neuroses of the skin are involved independently of other elements of this structure, there is usually some centric lesion which is then the disease and the cutaneous disturbance, is only a symptom. When the other tissues, composing the skin are diseased, the cutaneous neuroses are of course also affected. But according to Dr. Damon, Lichen tropicus might be included among the neuroses, as well as Prurigo or Urticaria.

In the class of chronic exudative dermatoses, Hebra places a group which he denominates pruriginous dermatoses, and among the latter are eczema, scabies and prurigo. Dr. Damon might also have included eczema and scabies among his class of neuroses, for the neurotic symptoms in both the former are often as well marked as in either urticaria or herpes zoster.

The author's efforts at reform are not confined to classification. Herpes zoster is almost invariably spoken of as simply zoster, which is neither elegant nor proper. Dermatalgia is changed to dermalgia, and under this title he also includes simple hypersensibility of the skin.

In perusing his book we are constantly made to realize that innovation is not always improvement, and that there is no necessary connection between them.

The part of the book which relates to treatment is considered carefully and at some length. A number of formulæ are given, and many of these are accredited to Dr. Durkee.

The book is well bound, the type is large and clear, the paper excellent, and great credit is due to the publishers.

J. O.

NOMENCLATURE OF DISEASES. Drawn up by a Joint Committee appointed by the Royal College of Physicians of London. Subject to decennial revision. London, 1869. Presented by the College of Physicians.

This is perhaps the most complete nomenclature of diseases extant. The English nosology occupies each alternate page and the Latin, French, German and Italian synonymes are arranged on the page opposite. The English, French, German and Latin nomenclature is given as follows: For general diseases; local diseases; diseases of the nervous system; diseases of the eye; diseases of the ear; of the nose; of the circulatory system; of the absorbent system; of the ductless glands; of the respiratory system; of the digestive system; of the urinary system; of the generative system; of locomotion; cellular tissue; cutaneous system; poisons; injuries; classification of tumors; parasites, etc. There is appended the most complete index that has ever appeared in any similar work. Indeed the index of this work is very valuable. The great value of this nomenclature is manifest

from the names of the distinguished men engaged in its preparation—Sir Thomas Watson, Bence Jones, Bennet, Gull, Addison, Barclay, Sibson, Budd, Stanley, Druitt, Farr, Simon, Holmes, Chambers, Quain, Thompson, Owen Rees, Handfield Jones, Peacock, with many others, have been engaged on this herculean labor for ten years, and the result is in every respect worthy of these great men. There has already been an effort made by the American Medical Association to have this nomenclature adopted by the profession in the United States and there is no doubt but that the committee appointed in this connection will accomplish this result.

Transactions of the Medical Association of the State of Alabama.—This is an interesting and valuable volume—though not large, it is made up of practical papers. The article by Dr. R. F. Michel, on hæmorrhagic malarial fever, evinces much thought and labor. It seems probable, from kindred papers on the same subject, that this disease which has attracted so much attention at the South during the past year, is chiefly the old malignant remittent fever of these latitudes. When the Southern States were, previously to the war, under thorough cultivation, with the necessarily complete drainage everywhere manifest, this form of fever was almost completely eradicated, but, since the war, these garden spots of the world have lapsed into a condition of comparative ruin. The beautiful, well drained and well cultivated fields have become *jungles*, and it is not surprising that a fever very similar to the jungle fever, described by English and French surgeons stationed on the African coast, should make its appearance. The descriptions, symptomatology, etc., are strikingly similar. Many accurate and laborious observers are at work and the obscurity connected with the subject will soon be dispelled.

Dr. Seelye's paper on embolism is highly creditable. Dr. Weatherly gives some seasonable and practical views in connection with opium, while Dr. Matheson attracts attention to the valuable results observed, when in relasping malarial fevers arsenic is given alternately with iron. Drs. Kumps and Abernathy have made a valuable report on the climatology and diseases of North Alabama. This volume of Transactions is in every respect creditable to the physicians of Alabama.

The New Orleans Infirmary and the Medical Association of New Orleans—1869. This is a pamphlet giving the correspondence between Drs. Samuel Choppin, C. Beard, D. Warren Brickell, J. Dickson Bruns, and the New Orleans Medical Association, in regard to an alleged breach of the Code of Ethics on the part of the physicians whose names are given. The breach of the ethical code charged is, that these gentlemen advertised themselves in detail as specialists, when advertising themselves as the representatives of the Infirmary mentioned. While the charge is technically correct and true, the error is one so common elsewhere and so manifestly not the error against which the action of the Association was directed, that, it is to be regretted that the matter at issue was not settled by some course less unpleasant and unfortunate in its results. As it is, the physicians whose names are given, have repudiated the action of their local Association and then resigned, when, of course, under the circumstances, the Association could not accept their resignations; while the Association claims that these gentlemen are still its members and that they are under censure and suspension, until the jurisdiction of the Association is fully acknowledged and until the errors cited shall be admitted and abandoned. These positions are reciprocally unfortunate and ludicrous. The gentle-

men named, as well as the members of the New Orleans Association, owe it as a duty to the profession, that this matter shall be honorably and definitely arranged, by either referring the whole correspondence to an impartial court medical, or by adopting some other course equally honorable and efficient.

The proprietors of the Infirmary have committed an error in claiming that the voice of the press sustains and supports their course. Such was the action of the press *before* the meeting of the Association, in May last, that is *before* the passage of the law, (by the Association) denunciatory of specialists' advertisements, but since that law was passed, the press does not and can not take such a position. It is to be hoped that the law will be repealed, for it is injudicious, but until this is done, every member of the Association should certainly render allegiance to its laws.

MISCELLANEOUS.

"Non Omnes Eadem Mirantur Ament Que."

Analysis of the Life of Velpeau—Translated from "Eloge de M. Velpeau by M. Jules Béclard," for this Journal—Alfred Armand Louis Marie Velpeau was born on the 18th of May, 1795, at Bréche, a small hamlet, composed at the time of a dozen houses, almost lost in the midst of woods and fields, between Tours and Mans. His father was a simple, hard-working horse-leech, burdened with a family, and uneducated. The Curé of Bréche, the only inhabitant of the place who could sign his name, was early impressed with the disposition of young Velpeau, and determined to do what he could towards educating him. At five years of age the young Alfred served at mass, and was learning to read in "The Ritual;" on the days of grand celebrations he recited from memory the "Evangile." Unfortunately the good Curè died, leaving him for an heritage an abridged copy of "La Vie De Jesu

Christ." He did not, however, lose courage, but, with a sad heart, he read and reread the volume and endeavored to imitate the characters there represented, and with difficulty taught himself to write in printed letters. Six years passed in this way, after which he received a few lessons from a wandering schoolmaster who came to Brèche to reside.

The father of M. Velpeau was often consulted in regard to the maladies of animals. He purchased two works on Veterinary Medicine, and as his son could read his aid was required. It was at this time that he was attacked with a malady of the right leg, to relieve which every physician in the neighborhood was applied to, but in vain. The disease not giving way, he decided to treat it himself. "After all," said he, "medicine for men should not be so different from that which we give to animals." He sought among his books, learned to know herbs and plants, and composed for his own use remedies of every nature. The disease, however, lasted for two years, and a long time afterwards, even at an advanced age, he occasionally complained of his unfortunate limb. The experiment which he made upon himself he was not slow to try upon others, and very soon nothing in the whole country was as much talked of as the skill of the young horse-leeche. He thought of nothing but of medicine. That was a grand day for him on which he was enabled, by close economy, to buy "Traitè des Maladies des Artisans" (a treaties on the diseases of workingmen) and "La Mèdicine des Pauvres" (Medicine for the Poor.) During every moment of leisure he could snatch from his work—during meals, and from sunset to early dawn—he devoured his treasures. Years were passing, the youth had become a man; he was twenty. He was seized with a desire to leave his parents, abandon his brothers and sisters, of whom he was rapidly becoming the support, but he saw that the idea was impossible. He became gloomy and serious, when an accident, which was almost turned into a tragedy, gave him an unhoped for deliverance. There was brought to him one day a poor idiot girl. He had always read that black hellebore was universally regarded as a panacea for folly. He infused it with some harmless vegetable and administered it to the girl. Grave symptoms of poisoning were not slow in making their appearance. During three days—days of cruel anguish—the unfortunate girl was in danger of

death. She recovered finally, not of the malady, but of the medicine. In the meantime the great physician, as he was called in Bréche, M. Bodin, was brought in all haste from Saiute Patern. He reprimanded the imprudent young man, advised him with gentleness, and finally obtained a promise from him to renounce an art which certainly was not his. Behold the whole edifice of his hopes destroyed! His mortification was so great that he could not control himself, but went for sympathy to a rich neighboring landed proprietor who had often shown him kindness. There he met the tutor of his good friend's children, who was so struck with his intelligence that he offered to share his instruction with him. Accordingly he gave him two pages to learn—the next day he had mastered ten. In less than twenty days his progress was so rapid that the whole neighborhood was astonished. His friend hesitated no longer. He accompanied him to the house of M. Bodin, who, upon questioning Velpeau, was much impressed by his replies. It was then decided that he should go to the city in order to prepare himself for the grade of Health Officer.

In April, 1816, M. Velpeau laid aside his leather apron, eft his poor parents, and, escorted by his protectors, arrived at Tours. On their recommendation M. Gourand, father of the distinguished physician of that name, received him as his student. A slight impression of medicine and some notions of grammar composed the whole of his attainments, but he had an immoderate desire to learn—a tenacity more than common; and, above all, he had faith in himself. At first he incurred the ridicule of his companions, but it was not long before his merit was fully appreciated by them, and a sentiment of profound esteem succeeded the raillery with which they had greeted him. If youth is sometimes thoughtless and mocking, be it said to its honor that there is always an inextinguishable generosity which strengthens and redeems it. The newcomer sought every occasion to improve himself. His comrades took care not to oppose his wishes, and the rising sun often found him still busy at his work-table.

This diploma of Health Officer. so much desired, was at last obtained; but even then he was not satisfied. M. Bretonneau remarked this and made him his first scholar. He lodged and ate at the hospital. It seemed to him that to be worthy of such a master it was at least neces-

sary for him to become a doctor. The time was passed when the Ambroise Parè and the Jean-Louis-Petit could, without any preliminary education, become the greatest surgeons of their time. It was thought necessary for a young man to know by heart Hippocrates, Galen, Aristotle, Cicero, Seneca and Fernel.

Velpeau was obliged to arm himself with patience and resolution. At twenty-three, after two years of study, he had achieved only that which a cultivated boy would have accomplished with very little perceptible labor. In April, 1820, M. Velpeau at last accomplished his heart's desire, and found himself in Paris and the owner of a small sum of money, which he had carefully saved. To be in Paris, however, was not everything; it was necessary to remain there. Under the spur of necessity he accomplished prodigies of economy, but, nevertheless, his resources drew to an end. Hearing of this, M. Bretonneau came to his aid, and M. Cloquet engaged him to prepare his anatomical subjects and confided to his care eight students. "My fortune is made," he said; and, in truth, it grew with rapidity. At the end of the year he carried off the prize of Anatomy and Physiology in the School of Practice. The next year he was unanimously elected Assistant of Anatomy. Numerous students desired to follow his course.

It is now five years since he left the workshop and already he teaches Anatomy, Physiology, Surgical Anatomy, Bandages and Operative Medicine! Very soon he will teach External Pathology, Embryology and Obstetrics. A few months after his arrival in Paris M. Velpeau inserted in a medical journal a note on the treatment of acute opthalmia. He proposed to apply the remedy himself and to retire as soon as inflammation occurred. This was his first trial. He next communicated to the Academy of Medicine and the Academy of Science several articles on the most widely differing subjects. In 1825 appeared his "Traité d'Anatomie Chirurgicale ou Topographique"—an important work, and one which marks an epoch in the history of surgery.

To study the form, the structure, the situation and the action of the organs of those diverse though harmonious parts, each function of which has its method in the vital economy—such is the object of that anatomy which may be called natural—the anatomy of the physiologist and of the philosopher. But this is not enough for the

surgeon. He must, above all, understand the relation of all the parts between themselves. To this end the surgeon constructed for his own use a new anatomy—a kind of topography of the human body, which supposes and completes the knowledge of descriptive anatomy. He traced on the surface of the body fictitious lines and divided them into a certain number of departments. Each one of these regions became an artificial organ, composed of tissues the most diverse, and of which he studied the composition layer by layer, from the most superficial to the deepest.

At the time that M. Velpeau's book appeared Surgical Anatomy was not precisely a new science. Since the first years of the last century Jean Palfin, Professor at Grand, had published in the Flemish tongue a treatise on Matter, which Antoine Petit judged not unworthy of a careful translation forty years afterwards, and we all know that Boyer, the strict follower of Desault, ended his treatises on anatomy by a series of topographical résumés. At an epoch still more recent M. Colles, of Dublin; Burns, of Glasgow; and Rosenthal, of Berlin, published essays of the same nature. All these attempts, more or less incomplete, betrayed the imperfections of a science still in its infancy.

A Professor of Anatomy who ought to cast over our school a light of no short duration, and of whom we cannot think without emotion, made this science in 1821 the object of his lessons. Every one awaited with impatience the work on which he labored, when he fell premturely in the height of his career, as had done Bichat, his model and his rival. His teachings, however, were not lost.

The Prosectors at this time were Bouvier, Blandin, Gerdy and Velpeau. Revised, completed by the work of the laboratory, topographical anatomy was each year becoming more generally understood in all its forms in the School of Practice, and M. Velpeau became the first interpreter of its recent progress.

Conceived at the same time, more directly inspired by the teachings of the Faculty, less extended, less rich in surgical deductions, but not less complete in its anatomical relations, the book of M. Blandin followed at some months' interval. Translated into nearly all the languages of Europe, these two works were fruitful in con-

necting anatomical ideas with the precepts of surgery. They gave to diagnostics a firmer base—a greater precision to the operating art, inspired the operator with a courage unknown at that time; and they brought out other works at a later period.

At the time that he wrote his "Traité d'Anatomie Chirurgicale" M. Velpeau had already commenced a series of researches which became during more than ten years the principal object of his labor. As in the ovum of animals, we see also in the human ovum when it developes, two parts, first, the embryo; then around it the liquids and the membranes. It was to these liquids and to these envelops—intermediate organs which nourish and develop the embryo—that M. Velpeau's book was devoted. Even in restricted limits the field of observation is still vast, and from the first numerous difficulties present themselves. Here is an ovum; what is its age? Assign the precise date to the fecundation, which seemed formerly the most simple thing. Do we not know to-day that this mysterious act occurs in the most profound depths of the reproductive system; that it requires at least hours, if not days, for its accomplishment? This ovum, when it comes from the ovary into the uterus, what are its dimensions? Not even that of a millet seed. After three weeks it still does not measure as much as a *centimetre*. To see it, to study it, it is necessary to seize it; and we can hardly touch it without destroying it. Ova which can be examined are no longer alive. Since when? Are they still intact when they escape from their place? May not the causes which have led to premature expulsion of the ovum have also changed its nature? Think well of these questions. Whatever may be the natural problem which man seeks to solve, it is always thus—the same obstacles confront him. Nature never reads her secrets to us. It is necessary to pluck them by force.

It was M. Velpeau who dissipated the doubts which existed in regard to the ovum, and brought the development of the human ovum under the general laws of embryogeny, the science which at the beginning of his career was the chosen object of his studies.

The greater part of the ideas which he developed in his work on "Ovologie" M. Velpeau has repeated in his "Traitè de Tocologie." As remarkable for the abundance of his facts and the number of his researches as for the

novelty of his ideas, this book—a complete picture of obstetrical science—initiated the profession into doctrines at that time little known in the continental schools.

Nevertheless, he failed to be elected to several chairs which in as many years had become vacant. Four times success escaped him, but he was not to be thus easily discouraged. Twenty days after his last defeat he was engaged in a new contest. The desired chair was that of Clinical Surgery, and this it was fated that he should attain. His clinical lessons immediately attracted to "La Charitè" a large concourse of auditors. Students came to receive solid instruction, clear and methodical teaching; they found, also, a brilliant good sense, accompanied by a slow and reflective manner, which deeply engraved upon their minds all that he taught. Far from declining, the success of his first days was ever on the increase—M. Velpeau's reputation extended so rapidly that in the crowd which each morning surrounded him there were more physicians than students.

M. Velpeau possessed in a high degree a quality more rare and more precious than we are inclined to think. It was an exactitude, a regularity which never failed. Listen to the homage that M. Husson, of the Hospital Administration, gratefully placed upon his tomb: "I can affirm," said he, "without fear of contradiction from any one, that among all those who consecrated themselves to the relief and comfort of their kind, none has ever carried into his work a better sustained ardor, a more rigid exactness, a self-abnegation more entire. During nearly forty years he was seen each day to leave his home for the hospital without once deviating from his route; he never consented to attend to any call that had been made upon him until this duty was accomplished."

All the occupations of M. Velpeau were regulated in the same manner. In no instance was he ever absent from a society or a committee where he was due—almost always he was the first to arrive. I have never known but one man to whom he could be compared, though in other things there was no resemblance. I remember that one day I met M. Orfila in the yard of the School of Medicine. He was leaving and I accompanied him, when, approaching us, hat in hand and with hurried step, was a young man all breathless with haste. M. Orfila stopped, and looking at his watch, said, "Our appointment was for twelve o'clock; it is now five minutes

past; the time which I could have given you is passed; I will attend you to-morrow;" and, stepping into his carriage, he disappeared from our sight.

This regularity in his habits could alone explain how M. Velpeau was able to meet the demands of hospital service, of clinical teaching, and of numerous clients and still find the time to compose extensive works, as well as a considerable number of memoirs, of notes and of discourses.

All that he published even at an advanced age was not only revised carefully by himself, but written with his own hand. When a practitioner was mentioned in his presence, *as being too busy to write*, an ironical smile passed over his lips.

To gain an idea of all the works of M. Velpeau we are obliged to glance at every point in the whole domain of surgery. His encyclopedical mind has touched on subjects the most widely separated. His Eléments de Médecine Operatoire and the three volumes of his Lescons Cliniques represent but a small part of what he has done. Diseases of the eye, and more particularly those of the cornea and conjunctiva angioleucitis, fractures of the cranium, erysipelas, purulent infection, diseases of the bursæ of the tendons, hæmatocele urethritis; in operative medicine, acupuncture, immovable bandages, bronchotomy, enterotomy, irritating iodine injections, these are, together with many others, the points which marked his progress.

Although he belonged to an age and to an epoch in which surgeons attempted too frequently imprudent operations, and when they were too much inclined to consider the knife as the sole resource, M. Velpeau showed himself always a most cautious operator. Others were, perhaps, more brilliant—no one was more sure. He was as much occupied with the result of the operation as with the operation itself. Erysipelas and purulent infection had rendered him prudent, and he had acquired by experience, a surgical virtue more common now than formerly, viz: patience. "The older I grow," said he, "the less I amputate."

M. Velpeau was elected a member of the Academy of Medicine in 1832; eleven years later he entered the Academy of Sciences. As he knew much, he was always ready to speak. While he was not precisely an orator, his strongly expressed convictions, his self-posses-

sion, his perfect fluency, his sharp and penetrating logic, all rendered him a most formidable opponent. The vivacity of the long debates of which the echoes can still be heard in the Academy of Science ought not to surprise us. It has been well said that of all the property which man can acquire, his inventions and discoveries are those which he possesses most legitimately. They defraud none of their rights, and yet they benefit all. They are the property which a man defends with the greatest ardor, because, being the offspring of his mind, their existence is confounded with his own, and when they are taken from him he loses a part of himself.

A few months before his death, M. Velpeau appeared before this tribunal to demonstrate that it was possible, without injury, to inject air under the skin in the thickness of the healthy tissues and in fractional doses even in the arteries and veins farthest from the heart, and also, that it would penetrate, little by little, into the mass of the blood, across membranes, pulmonary and cutaneous. But when the blood has left its channels, when there is on denuded surfaces, or in the depth of the tissues, foreign matter retarding the movement of life, then here all the conditions of putrid decomposition find themselves united. To remove the active element of fermentation, is the object of sub-cutaneous operations; to render it inactive, is the end which it is now proposed to accomplish by the divers processes of dressing wounds.

M. Velpeau published, in 1853, his *Traitè des Maladies du sein et de la région mammaire* (Treatise on diseases of the skin and of the mammary region), the last and most original of his surgical works. To the erudite compiler, more zealous in setting forth and discussing the opinions of others, perhaps, than in forming his own, has succeeded the consummate physician and surgeon, ripened and matured by experience, and by habits of teaching, rich at the same time in practical learning and in his personal inspiration. A dangerous malady of which the glandular tissue is often the seat, fatal disease in medicine, and often in surgery—cancer—was for many long years the object of his researches. It was in this way that he was led to study the disease of the mammary gland, where the trouble is apparent to the eye and in which one can follow, day by day, the phases of its evolutions. To recognize the disease in which the termination *may be* favorable and to distinguish this from those

in which the issue can only be fatal was, in a word, the leading idea in this book. To the first, belong general inflammation; partial inflammation necessitating varied treatment; general hypertrophy, extending to all the elements which enter into the composition of the gland, or which is limited to some of them; partial hypertrophy of which he had already traced the history, under the name of adenoid tumors; the galactocele—a tumor formed by milk or by some of its parts. Under the name of cancer, an ancient term which we will use yet for many years, he comprehended the whole of malignant heteroplastic tumors, that is to say, that group of tumors whose evolutions are generally rapid, and which, after the manner of parasites, invade the tissues which surround them and endeavor to extend themselves on all sides. "In principle," said he, "it is at first a nothing, an imperceptible vesicle, a pin's head. Let it proceed, follow it, nothing stops it: the particles of which it is composed multiply themselves, and it will substitute itself for the part which has received it. Then, even though it finally destroys itself, it continues not the less its work of destruction; it spreads itself in the surrounding parts, disseminates and scatters itself and deposits around it germs of destruction and of death."

When he spoke in the academy or in the hospital, he appeared to great advantage; one felt that he was in his chosen sphere. In the ordinary walks of life, however, he showed himself much less at ease, and was grave and taciturn. He was often inapproachable, not from a sentiment of pride, but from a sort of timidity, for he remained always simple at heart and in mind, even when at the highest point of his scientific renown. His few friends knew that this close reserve concealed a heart of unusual warmth. Once, in his presence, the conversation happening to turn upon the insensibility of surgeons, he said, "The *man* upon whom I operate, knows that the operation is for him the only chance of recovery—hope sustains him and this thought is dominant with me; but a poor little child knows nothing, nothing but the suffering; thus, whenever I am obliged to approach him with my instrument, my heart is lacerated."

A figure slightly above the medium, the body slender and erect, the step rapid; eye quick and piercing, to which long and thick lashes, gave still more of effect. Upon his countenance that light, called by the ancients, *sublimium*

virorum pulcher flos. Such was M. Velpeau. None could forget him who had seen him once.

At the time even of his greatest success he preserved his habits of sobriety and of economy, and lived always in the simplest manner. Refusing nothing to others, he refused every thing to himself; it is true that his wants were few. From his first arrival in Paris he came to the aid of his parents, and provided for the education of his brothers.

During his entire life he preserved for the good offices of a poor woman, at the time of his arrival at Tours, a profound gratitude. Whenever he was called into Tourraine he failed not to visit her. When she fell into want he assisted her in the most delicate manner.

Those difficult days of the past he loved to evoke. Who can forget the touching words which he spoke, several years since, at a professional banquet. It was with an emotion, shared by almost the entire assembly, that he recalled memories of the village, the paternal workshop and his laborious night watches which were illuminated by youth and hope.

During many long years M. Velpeau lived a most retired life. It was not until the end of his life that he consented to accord anything to those distractions which we call the pleasures of the world. Making allusion to the serious gravity of the first years of his medical life, he said to one of his favorite students, (M. Felix Guyon,) "I was born old, I have lived old, I shall die young."

During the winter of 1867 M. Velpeau suffered from a serious attack of grippe. When he came back to us, we were struck with the alteration visible on his features. This was the disease destined to prove fatal to him. He had a presentiment of his approaching end, but he endeavored to conceal his state from all. His most intimate friends were obliged to seem unconscious of it. "It is necessary," said he to his friend, M. Dubois, "for me to be entirely dead, before I will acknowledge it." Even this year he terminated his lectures at the usual time, and fulfilled his duties in the Faculty to the end of the term. But it was his last effort, the closing scene of his public career. The disease which had already attacked him now took a most alarming form. A violent fever seized him, his respiration was embarrassed, in a few days all hope was lost. On the 24th of August, 1867, at ten o'clock in the morning, he drew his last sigh. Thus

died, at the age of seventy-two, this indefatigable worker, whose teachings and writings have thrown upon the surgery of our time a brilliant light and extended afar the renown of the French School. His name is for all time attached to the surgical history of the nineteenth century, in company with that of Boyer, of Antoine Dubois, and of Dupuytren. Inheritor, like them, and after them, of the traditions of Desault, he lived long enough to associate himself with the new tendencies, which are destined to revive among us the works of Hunter.

The end which he pursued he never lost sight of for a single instant. Professor, writer, orator, in the greatest as in the smallest things, he perfected himself incessantly. In his long career, which partook of every phase of life, he marched proudly on, asking nothing from any one, and his rivals themselves render him this justice that in him merit was never inferior to success.

The life of M. Velpeau had been one long conflict. But let us not commiserate, the heroes of those noble battles whose celebrity is the least of their recompenses. No—happiness is not to be attained by that sterile idleness, which, deceitful idol, is pursued by the sighs of blind worshippers. Nature herself conceives us in travail. In this vast universe, agitation, transformation, progression, is found in everything. The law of nature is the law of humanity. To grow and to develop himself ceaselessly—that is to say, to cultivate his mind, purify his heart, to seek the truth and to fight for it, such is man's great destiny. In this life of progress, beyond which he sees nothing but the infinite, each victory over himself or in the cause of Truth, is for man the source of a felicity unmixed. Happy he, to whom it has been given to be a leader and a guide upon this road.

The titles of the numerous works (235) of this successful author will be given in the next number of the Journal.

Ovariotomy.—The case of ovariotomy, by Dr. Atlee, reported in my last letter, terminated fatally on the fifth day following the operation. In this case both ovaries were removed, and the case was complicated by extensive adhesions. As a post-mortem examination was denied, the cause of death could not be definitely ascertained. Since that time the doctor has performed four operations, all of which have terminated successfully. Of the seven

cases, of the new series of one hundred cases, but one has died. In the last case, although there were some adhesions, and the patient was much exhausted by long-continued suffering, the clamp was removed on the fourth day, the sutures on the sixth, and the patient sat up on the eleventh. In connection with this subject, I desire to call attention to an interesting and elaborate article by Dr. Lôen Sköldberg, of Sweden, published in the Swedish Archives of Medicine, on the early history of ovariotomy in England and America, and on the present position of the operation. The question of priority in the performance of this operation, for a long time a mooted one, is ably and fully discussed by the author. Referring to the cases of Houston, 1701, Percival Pott, reported in 1783, D. Zondi, and Laumonier, 1781 (Galezowski's he does not mention), he argues that, as these cases were either partial or accidental, and not undertaken after previous diagnosis, the claims of priority for these operators can not justly be conceded. He concludes that "America is the country which, with justice, claims to be regarded as the cradle of ovariotomy, and to Dr. Ephraim McDowell, of Kentucky, (born in Virginia, November 11, 1771, died at Danville, June 25, 1830,) belongs the honor of being the first surgeon who, not only after previous diagnosis, undertook the first complete extirpation of a dropsical ovary, but also performed a whole series of these operations."

This, if I mistake not, is the first recognition of our country and of Dr. McDowell on the part of European authorities. This may be regarded strange, in view of the fact that they were so completely established by Prof. Gross in his report upon "Kentucky Surgery," published in 1852, and subsequently incorporated in his "System of Surgery."—*Western Journal of Medicine.*

Use of Oil of Turpentine in Parasitic Diseases of the Head and in Traumatic Erysipelas.—By Professor Von Erlach and Lucke, of Berne.—For the destruction of the parasites which cause many scalp diseases Küchenmeister has recommended alcohol, which retards the development of spores and fungi, but several experiments have proved that the operation of alcohol does not extend to the fungi vegetating in the hair-follicles. Tincture of iodine acts more certainly than alcohol on the fungous growths developed in the hair-follicles, as in

herpes tonsurans, but it is necessary to shave the whole head, and to apply the tincture repeatedly, until the epidermis has been removed three or four times, and even then there are often disappointments in the cure, which in the most favorable cases requires 102 days. According to Professor von Erlach, painting with oil of turpentine is much more certain and more rapid in its operations in these scalp affections, herpes tonsurans being cured within fifty days, and several cases of mentagra being cured in the same manner within a week. Since according to recent researches traumatic erysipelas is to be reckoned among the infectious diseases, and often resists the ordinary methods of treatment, Professor Lücke endeavors to destroy the infectious matter by a drug which penetrates deeply into the tissues, and for this purpose he paints the affected parts with oil of turpentine. He records a case in which this plan was successfully tried, and he states that it was also successful in eight other cases, the erysipelas disappearing in two or three days, whereas, formerly he had observed the most dangerous symptoms to occur in similar attacks. A very striking circumstance was the rapid fall of the temperature, in connection with the disappearance of the symptoms, and this reduction of the temperature was always manifested on the first application, and was the more certain in proportion to the energetic use of the remedy, and therefore, it was especially observable after rubbing.—[*American Journal of the Medical Sciences.*

NOTE.—Turpentine was freely and very successfully used in the treatment of traumatic erysipelas, by Confederate surgeons.—ED.

HYPODERMIC INJECTION OF ERGOTIN IN THE TREATMENT OF ANEURISM.—Prof. Langenbeck writes an important paper on this subject. From the well-known influence of ergot in provoking contractions of the organic muscular fibres of the uterus, he was led to think that a similar stimulation might be produced by it, with beneficial effect, in the muscular coats of the arteries in cases of aneurism. The first case in which he employed it was one of subclavian aneurism in a man aged forty-five. The tumor was treated in the first place on Jacobson's plan, with the repeated application of moxas, and a great diminution of all the symptoms took place and lasted for three years; but the pulsation continued. In consequence (as the patient thought) of an excessive summer heat, a relapse took

place, the tumor enlarged greatly, and all the old symptoms returned. Three centigrammes of aqueous extract of secale were injected over the tumor, with great relief to the pain and consequent insomnia. Between January 6 and February 17, about 30 grains of ergotin were injected, with the effect of so greatly relieving the symptoms of pressure in veins, that the pain and paralysis of the arm and hand were diminished to a remarkable extent. The pulsation of the aneurism was also sensibly weakened, and the tumor somewhat shrunken. In a second case—one of aneurism of the radial, about an inch and a quarter above the wrist, and which had existed for many years—about one-fourth of a grain of aqueous extract of secale (dissolved in seven times its bulk of half and half glycerine and sp. rectif.) was injected into the skin above the tumor, and on the following day the tumor appeared to have vanished. The cure became apparent, and the only trouble was a local erythematous inflammation, which lasted some days. Langenbeck discovers that it was natural that more powerful effects should be produced by the remedy in radial than subclavian aneurism, since the radial artery is more copiously furnished with muscular fibres than the subclavian.—[*The Practitioner*, May, 1869, from *Berlin Klin. Wochensch.*—*American Journal of the Medical Sciences.*

Bromide of Potassium for the Sleeplessness of Infants.—M. Moutard-Martin has communicated to the French Academy of Medicine a memoir on "Some Applications of the Bromide of Potassium to the Medicine of Young Infants." Every one, he observes, admits the possession of sedative properties by the bromide, and in this direction it has become one of the most useful substances in the Materia Medica. Bearing in mind its hyposthenic action in erethism of the nervous system, and its innocuity, even in large doses, he believed that it might be employed with advantage in some of the pathological conditions of very young children. Among these, sleeplessness, alike mischievous to the infant and wearying to the nurse, is one of very common occurrence. The child does not seem otherwise ill, but has a very great insufficiency of sleep both by day and night, or only at night. Where a great variety of means has failed to remove this sleeplessness, the bromide succeeds in a remarkable manner, and M. Moutard-Martin adduces

in his paper several cases in proof. His conclusions are: 1. The bromide of potassium given in small doses (from five to twenty centigrammes) is very well tolerated by young infants. 2. By its sedative action it cures *insomnia* in these cases. 3. Administered to infants suffering from the accidents of detention, such as restlessness, *insomnia*, cough, etc., it frequently relieves these; and it is probable that its employment, regulated with prudence, would sometimes prevent the occurrence of convulsions. 4. It should not be administered to infants when suffering from diarrhœa. 5. In certain exceptional cases, in which the nervous erethism is predominant, its action is prompt and decisive.—*Medical Times and Gazette, Dec.* 12, 1868.

Use of Ether and Etherized Cod-liver Oil in the Treatment of Phthisis.—Dr. B. W. Foster, in a paper read before the British Medical Association, at its recent meeting, referred to the great difficulty of digesting fatty food which distinguished the great majority of phthisical patients, and stated that this defective assimilating power has hitherto been treated by incorrect or insufficient means. The only true method of treatment, he thinks, to be adopted in such cases, should be directed to the organs whose secretions are at fault. Physiology teaches that the digestion of fat is specially performed by the secretion of the pancreas and glands of the small intestine. Dr. Foster had long sought for a means of influencing these glands, and at last had found most ample evidence in the works of Claude Bernard, that ether is capable of augmenting the pancreatic secretions to almost any degree. Bernard was accustomed in his experiments to give ether to animals in order to obtain a good flow of pancreatic juice. Applying this discovery to the treatment of phthisis, Dr. Foster had met with most satisfactory results. The ether was given as a mixture sometimes, but generally in the form of etherized cod-liver oil. Of the patients treated, and all observed over some months, some over two years, 42 per cent. improved under the treatment, 30 per cent. remained stationary, and only 28 per cent. became worse; 12 per cent. of the cases treated presented all the evidence of the arrest of the disease. In no case were the symptoms and physical signs alone accepted as evidence of improvement; every case was weighed from week to week while under ob-

servation, and only a decided increase of weight, in addition to other signs, received as evidence.—[*Brit. Med. Jour.—Am. Jour. Med. Sciencee.*

THE CURE OF ACUTE ORCHITIS IN TWENTY-FOUR HOURS. Mr. Furneax Jordan, Professor of Surgery at the Queen's College, etc., treats orchitis by the immediate application to the scrotum of a solution of nitrate of silver (two drachms to an ounce), in very acute cases, adding a little vesication over the femoral artery of the same side by means of linimentum iodi. In a case of severe double orchitis, with intense pain, intolerable tenderness and great swelling, this treatment effected a cure in twenty-four hours. Mr. Jordan writes, (British Medical Journal) "The treatment of orchitis is of more than ordinary importance, from the discovery by Dr. Marion Sims that closure of the vas deferens from acute orchitis is a common cause of sterility—often where the blame is laid to the wife. The return of some urethral discharge is best removed, often in a few days, by maintaining, with iodine, a disc of milder counter irritation, the centre of the disc being the genital organs. On this principle I treat all inflammations of the genito-urinary organs, male and female; adding in the acute form, a little vesication on the sheltered position of the femoral arteries. The above treatment of orchitis is simply an illustration of a new system of treating all inflammatory diseases, and which I constantly adopt in all, with success proportionately as great as in acute orchitis."—[*Pacific Medical and Surgical Jour.*

TRANSFUSION OF BLOOD.—A successful operation for the transfusion of blood was recently performed by Dr. Enrico Albanese at the hospital of Palermo, Sicily. A youth aged seventeen, named Giuseppe Ginazzo, was received at that establishment on the 29th of September last, with an extensive ulceration of the leg, which in the end rendered amputation necessary, the patient being very much emaciated and laboring under fever. The operation reduced him to a worse state than ever, and it became apparent that he was fast sinking, the pulse being imperceptible, the eyes dull and the body cold. In this emergency Dr. Albanese had recourse to the transfusion of blood as the only remedy that had not yet been tried. Two assistants of the hospital offered to have their veins

opened for the purpose, and thus at two different intervals 220 grammes of blood were introduced into the patient's system. After the first time he recovered the faculty of speech, and stated that before he could neither see nor hear, but felt as if he were flying in the air. He is now in a fair state of recovery.

A Powerful Hypnotic.—Opium, combined with hyoscyamine, produces the most powerful hypnotic action. Each increases the effect of the other. Morphia and hyoscyamine will—being of themselves insufficient to produce sleep—when combined, speedily induce that condition.—[*Med. Gazette.*

Extra Uterine Pregnancy.—I notice a controversy going on in your journal between Drs. Palmer and Roebuck in reference to the duration of pregnancy in cases of extra uterine fœtation after full term.

I have no disposition to interfere in this controversy, but as reference to the record will set the matter at rest, and, in order that Dr. Palmer may be understood in his position, will you be kind enough to allow me to quote the last paragraph of Dr. P.'s article, published in Med. and Surg. Reporter of May 29th.

He says: "So far as I am able to learn, this is the first case on record where extra uterine fœtation has gone on to and beyond the full period of gestation, and in no case (except the case I have reported) has the pregnancy extended beyond four and a half months."

In this declaration Dr. Palmer makes a very great mistake, and shows himself somewhat at fault in his knowledge of recorded cases where pregnancy has gone on, not only for months, but for years.

In vol. Fifth, page 104, Medico-Chirurgical Transactions, is a case reported where the child was retained for fifty-two years, the mother dying at the age of eighty years.

In the same connection a case is given where the child was retained five years, the mother in the meantime becoming pregnant with another child.

Vol. Second, page 114, American Jour. Med. Sciences, Dr. Heiskell, of Winchester, Va., reports a case where pregnancy went on for forty years, the mother dying at the age of seventy-five years.

Vol. Seventh, page 488, *Ibid*, Dr. Wilson reports a case

where the patient had had eight children, became pregnant with the ninth, went to full term, but was not delivered. In eighteen months afterward was delivered of a child in a natural labor. Died at the age of seventy-five years, having carried the extra fœtus thirty-seven years, and in the meantime given birth to her tenth child.

Vol. Eleventh, page 348, *Ibid*, Dr. Yardley reports a case where the child was retained for fifteen years, during which time the woman was delivered of a full-grown fœtus, at term, with the removal of the extra uterine fœtus, and complete recovery of the patient.

Vol. Twelfth, page 279, *Ibid*, Dr. A. H. Stevens, of New York, reports a case in which a *full-grown* extra fœtus was removed by him by the operation of gastrotomy ten years after conception, with complete recovery of the patient.

Vol. Thirty-six, page 44, *Ibid*, Dr. Johnson reports a case where four years and six months after a completion of full term the fœtus was extracted per anum, with complete recovery of patient.

Vol. Forty-five, page 252, *Ibid*, is a case reported where the fœtus was carried fifty-four years; in the meantime the mother bore two children, dying at the age of eighty years.

This list of cases could be considerably extended, as we have before us reference to fifty or more cases where the pregnancy has gone on from months to years; but a sufficient number of these curious and interesting abnormalities has been given to convince Dr. P. of his mistake in reference to the importance of his case, although interesting in itself, and for which we are under obligations to the Dr. for his excellent report.

J. W. Hadlock, M.D.

[*Phil. Med. and Surg. Reporter.*

MEDICAL NEWS.

"Nulla Dies, Sine Linea."

The Nashville Journal is becoming progressively smaller and rapidly worthless. In 68 pages (constituting now a full number) of the September issue, 60 pages are devoted to the most violent, scandalous and falsifying

abuse of the editor of the Richmond and Louisville Medical Journal, and of those many medical editors who assert that the recent record of Drs. Bell and Bowling has been disgraceful and ungentlemanly. These 60 pages are filled with ribald jest, bar-room wit, and obscene efforts at pleasantry. *Eight pages of this scurrilous periodical ars devoted to medical subjects.*

Three years since this journal was stricken from the exchange list. A few months previously to that disastrous period of its sickly existence, a small brown bundle enclosing a small brown Journal was received, with the piteous request, "*Please X—*" endorsed upon the wrapper. The request was granted as a favor. Drs. Eve, Jones and Jennings then tried to give character to the work, but so far failed that the Nashville Journal was soon stricken from the exchange list. When this disaster occurred, these gentlemen retired in haste, and the Journal has become progressively smaller and more disreputable, and now it is faint condemnation to say that it is a disgrace to American medical journalism. What other result could occur to this Journal when it is edited by one who has long since lost the respect of all who *know* him; edited by one who, before the fall of Nashville, was Falstaffian in swagger and bravado; who found the English language impotent for his denunciation of all connected with the Federal Government; but who, when the fall occurred, became one of the first sycophants "to crook the pregnant hinges of the knee that thrift may follow fawning."

Those who have read the Nashville Journal for 1869 will find throughout its pages the most bitter denunciation and vulgar vituperation of the Federal government on the part of Dr. Bowling. He was what was called "a last ditch man;" he could die, but never surrender, etc.; yet his city had scarcely fallen when we find him an acting Assistant Surgeon, in full pay, in the United States Army, and his residence the headquarters for recruiting negro soldiers!! No one can censure any person for representing to the very best of his ability conscientious convictions of right, whatever these convictions may be, but no one can sufficiently spurn the hypocrite and renegade who deliberately sells himself for the safety of his person and property. If such creatures will be content to remain in advisable obscurity, it is commendable charity to spare them, but when they forget their

ignominy and presume upon the indulgence which has been extended to them, it is a duty to transfix them with the javelin of the pen, and to hold them up as appropriate objects for public contempt and scorn.

A Difficult Time with the Savans.—When the Abbè Moigno undertook to introduce the stereoscope into France he first took the instrument to M. Arago and tried to interest him in it. Arago, however, has a defect of vision, which causes him to see double; when he looked into the stereoscope accordingly he saw only a jumble of four pictures. The Abbé then went to M. Savart, another distinguished member of the Institute, but M. Savart had only one eye, so he tried M. Becquerel. M. Becquerel was an excellent authority on electricity, but paid little attention to optics, for the excellent reason that he was nearly blind. M. Pouillet, of the Conservatoire des Arts et Metiers, was next applied to. He listened with deep interest, but unfortunately he squinted, and, therefore, could see nothing in the instrument but a fog. Lastly, M. Biot's zeal was invoked, but M. Biot was a very enthusiastic defender of the theory of the emission of light, and until he could be assured that the new instrument did not contradict that theory, he *would* not see anything in it. The stereoscope got into France after a while nevertheless.—*Ex.*

The Memorial of Trousseau.—The friends of M. Trousseau have succeeded in collecting a sufficient amount of subscriptions for two busts of this celebrated physician and clinical teacher. One of the busts—a marble one—is in the hall of the Faculty of Medicine; the other, of bronze, has just been placed under the peristyle of the Hotel Dieu.—*Ex.*

A New Styptic Collodion.—M. Carlo Parest gives, in the Gazette de Turin, the following recipe: Collodion 100 parts, carbolic acid 10 parts, tannin 5 parts, benzoic acid 3 parts. Agitate until a perfect solution is formed. It is of a brownish color, gives a pellicle similar to ordinary collodion, and instantly coagulates blood.—*Indian Med. Gazette.*

Dr. Ravoth reports (Berlin Klin. Wochensch, June 7,) some remarkable results from the subcutaneous injection

of morphia in cases of hernia which had previously resisted the taxis. Quarter grain doses were used.—*The Practitioner.*

Cure for Toothache.—According to the Lancet, one drachm of collodion added to two drachms of Calvert's carbolic acid cures toothache. A small portion of this gelatinous mass inserted in the cavity of the aching tooth, gives immediate relief.

From the recent researches of Professor Dareste, in Paris, upon the production of monstrosities in chickens, it is found that by varying the application of the heat to the egg, every form of known monstrosity can be produced at will.—*Med. Record.*

Extraordinary Operation.—Dr. Bœhm, a celebrated German surgeon, has just performed the operation of separating two female children, five years of age, who were joined together in the same manner as the Siamese twins. The German papers state that the operation was attended with perfect success; but one of the patients seems to have died the same day. The survivor is in good health.—*Med. Record.*

American Journal of Syphilography and Dermatology.—Dr. M. H. Henry proposes to edit a quarterly journal with the above title. Its first number is promised early in the fall.—*Med. Record.*

Preservation of Dead Bodies.—At the meeting of the Imperial Academy of Medicine (June 8th), M. Devergie stated that, at the School of Practical Anatomy, bodies injected with a mixture of three parts of glycerine and one of carbolic acid had been preserved for several months without giving off any unpleasant odor.—*Ex.*

Calabar Bean in Tetanus and Trismus Neonatorum. Dr. Monti has been trying this treatment in four cases of tetanus in new-born children, and one case of traumatic origin in a boy four years old. The traumatic case and two of the infants recovered; the remedy was mostly administered by subcutaneous injection. The author remarks on the extreme rarity of favorable results in this disease, and concludes, from his own experience and that recorded by other observers, that calabar bean offers a

much better prospect of positive therapeutic results than does any other drug. The proper dose for subcutaneous injection of an infant a few days old seems be 1-30 to $\frac{1}{8}$ grain of the extract; in the boy of four years Monti injected as much as $\frac{1}{2}$ grain, and a total of $6\frac{1}{2}$ grains of the extract were given altogether, by stomach and by skin.—*The Practitioner.*

Professor Purkinjie, of the University of Prague, died on July 28th, in his eighty-second year. His name has been for many years honorably known in connection with the advance of physiological science. His funeral was attended by deputations from Breslau, Agram, Brunn and Vienna, by the municipal body of Prague, by representatives of the University and of other bodies, and by a large concourse of people. Before his funeral, his body, clothed in black, was exposed to view for a day in the lecture-hall of the Physiological Institution. On the day of his death, a diploma raising him to the rank of a Knight of the Austrian Empire was sent to him from Vienna—an honor given too late.—*Med. and Sur. Rep.*

Claude Bernard, the Physiologist.—This celebrated physiologist has been called by Napoleon III. to the French Senate. He is now, besides Academician and Senator, Professor of General Physiology at the Museum, Professor of Experimental Medicine at the Collège de France, Annual President of the Académie des Sciences (l'Institut), Life President of the Société de Biologie, Member of the Academy of Medicine, Commander of the Legion of Honor. Twenty-five years ago, Claude Bernard was an apothecary's assistant in a country town.—*Med. Record.*

Dr. Louis Elsburg has been appointed Clinical Professor of Diseases of the Larynx, etc., in the Medical Department of the New York University.—*Ex.*

EDITORIAL.

"Nullius Addictus Jurare in Verba Magistri".—Hor.

Brevities.—The Medical press of America is not to be manacled!! The Doctor who preferred charges against the editor of this Journal for his editorial, Now and Then, has with the friends, adherents and supporters of his efforts, sustained an overwhelming and crushing defeat——The following inexcusable paragraph appears in the circular of the Medical Department of the University of Nashville: "The American Medical Association, at its last meeting, passed the following resolution; that no School charging less than $120.00 (while it favored, by a majority, $140.00) should be represented in that Body, nor should graduates of such Schools be recognized—therefore, the tickets for the full course of lectures is $140.00." The English of this paragraph is such as should secure for a school-boy a sound flogging, yet this objection is the least to be urged in regard to it. The facts are (1st), that the Medical Association passed no "resolution" on the subject of fees; (2d), the majority did not favor $140.00 as the proper fee, for this sum was proposed by Dr. Logan, and voted upon and lost by a large majority; (3d), there was nothing said or done warranting the assertion, that Schools charging less than $120.00 would not be recognized; (4th), there was not even an allusion to the subject of repudiating graduates from those Schools charging less than $120.00; (5th), there was no penalty whatever decreed in regard to the selection or rejection of any fee. All that the Association did on this subject was done, upon the following "motion," presented by the writer: "*Moved*, that the adoption of a uniform rate of Collegiate fees, $120.00 being the minimum, be accepted as the sentiment and

desire of this Association." This *motion passed unanimously*, but without any penal clause whatever As two of the Faculty of the Nashville University were present, and as the facts stated by the writer have been published in all the medical journals, the paragraph extracted from circular of the Nashville University is inexcusable; *it is a fraud!* a transparent effort to draw students into the University by the lasso of threat; a foolish attempt to frighten them into the belief, that Medical Schools charging less than $120.00 will not be recognized, and that the graduates of such Schools will be repudiated. Such conduct deserves exposure, and it shall have all that this Journal can give.——Those who wish to enjoy an excellent description of the early medical history of Washington, Alexandria and Georgetown, should read the Anniversary Oration, delivered before the Medical Society of the District of Columbia, by J. M. Toner, M.D., a genial gentleman, a wise and excellent physician.——The Probe, is the title of a new medical publication, issued by Joseph Parish, M.D., of Media, Pa. It is a quarterly of thirty-two pages; creditably prepared.——Dr. Nathan Allen, of Amherst College, has issued a well arranged pamphlet on the intermarriage of relations.——The Quarterly Summary of the College of Physicians and Surgeons, of Philadelphia, Pa., is highly creditable.—— Our Home Physician, is the title of a work by Geo. M Beard, M.D., of the University of New York. It is intended to popularize medical science. He is assisted by Professors D. B. St. John Roosa and Benjamin Howard, Judging from the advance sheets, this work will be far superior to all of a kindred character issued in America; it will doubtless have a large sale, as there is a growing disposition to learn, from reliable sources, something of that fascinating information which constitutes in its acquirement the labor and delight of the medical man.——

The Transactions of the Georgia Medical Association have been received. They are highly ereditable to the character of the profession, though the volumes are small. These transactions will be further noticed.——Those who wish to learn something definite and reliable in regard to the trichina, can do so by procuring "Virchow's Life of the Trichina," translated by Dr. Rufus King Browne, of New York.——One of the handsomest volumes of Transactions issued this year is that recently distributed by the Michigan State Medical Society. It evinces a condition highly praiseworty on the part of the medical staff of that State. Dr. Morse Stewart, Dr. Pitcher, Dr. Jerome, are an honor to their State, while many others, if not as well known to the writer, have given evidence that they are worthy members of a progressive and very efficient Association.——Dr. W. H. Helm, of Sing Sing, N. Y., is engaged in procuring the photographs of eminent medical men in Europe and America. These likenesses are excellent and are sold at the low price of $15.00 for 100 or $2.00 for one dozen. ——The medical men of the United States will learn with regret of the death of Dr. Joshua R. Lothrop, of Buffalo. ——The Swedish Government requires that every railroad train for passengers shall be furnished with a competent medical officer, with all of the medical and surgical appliances necessary. When will railroad companies in this country be compelled to take the same precaution for the safety of those whose lives are entrusted to them. ——Doctors will differ: Dr. Wilson Hobbs, of Carthage, Indiana, says (in the last issue of the Western Journal of Medicine) of John Bull's sarsaparilla: "Bull has made a princely fortune by the sale of the syrup of a drug almost destitute of medicinal qualities. I am sorry that this occasion will not allow me to do justice to this villainous trafic!" Dr. L. P. Yandell, sen., of Louisville,

Ky., after "looking over the list of the ingredients" of this compound, gives a eulogistic certificate, to John Bull, which is published conspicuously in "John Bull's Sarsaparilla Family Journal." Dr. Yandell's certificate shows, that his estimate of Bull's sarsaparilla is quite antagonistic to that of Dr. Hobbs.——Dr. Bowling bestows the following very ambiguous and painful eulogy upon Dr. Bell. He says that Bell stands "upon the cap-sheaf of the sciences (?) with a soft brick in his left hand and a kitchen knife in his right, an unshearable Sampson." Now this is a pose unknown either in mythological or classic statuary. Dr. Bell would assuredly present an equally formidable and certainly a more attractive spectacle, if, with the soft brick in one hand, he had been allowed to have at least an ivory-handled Sheffield dinner knife in the other; such a knife, too, would have been suggestive of pleasanter antecedents. The selection of the kitchen knife can only be understood or justified, in recognition of the artistic law, that a hero should be handed down to posterity in connection with the weapon most familiar to him; thus, Mason stands with the bill of rights in his hand; Boone with his rifle; Nelson with his sword; Jefferson with the pen, etc. It has been reserved for that stupid artist, Bowling, to add an original figure to this classic group; Bell on a cap sheaf, with a kitchen knife in one hand and a soft brick in the other. Why such a figure should be called an unshearable Sampson can not be understood, unless it is, that Bell has been closely shorn so often, that there is nothing left to shear and by charity, he is to be marked as "*unshearable.*" When the Scandinivian historian is no more, we have drawn for us a picture of the figure which his friend would place upon his tomb.——The British Medical Journal publishes a long article on the relations of the General Government to the medical profession and claims

that any control whatever on the part of a government over the medical profession would lead to injurious and dangerous consequences; that the profession of medicine would be deteriorated and its representatives injured in every way.——The Insurance Times advocates the policy of Insurance companies guaranteeing medical attendance to all whose lives they have insured. Each company to furnish medical attendance and this attendance to be uniformly and efficiently secured, by the novel plan of having attached to each Insurance company one or more medical men regularly salaried, and charged with the duty of attending the sick of the company. There is no doubt but that the death rate in all communities where life insurances was general would be thus largely reduced, provided each company secured (as it would be to its interest to do) the services of competent physicians. There are many and interesting questions involved in the discussion of this question. The subject is worthy of attention. ——The journals are reporting excellent results in the treatment of gonorrhœa by using as an injection an infusion of the resinoid extract of hydrastis canadensis; one drachm of the extract to three gills of boiling water. The injection to be used in the usual way and about a half ounce of the infusion to be used at each time.—— The offer is still open of a copy of this Journal, without cost for one year, to the author of the best answer to the question, "How can Dr. Bell still exist when he has suffered capital punishment." The replies sent in are being filed and they evince decided wit and ingenuity. The lists are still open.——Dr. O. Hendrick has recently been elected President of the Noxubee Medical Society at Macon, Miss. His inaugural is chaste and appropriate.—— Messrs. Saudek & Jones, corner of Green and Second sts., Louisville, are unsurpassed as apothecaries and in prompt and efficient attention to all orders received. Their med-

icines are genuine and are dispensed with care and dispatch.——At the last meeting of the American Medical Association Dr. Joseph D. Jackson, of Danville, Ky., was appointed to report at the next meeting upon the "Epidemics of Kentucky." This gentleman earnestly asks the aid of his brethren, promising that all papers sent to him will be judiciously used and their authors duly credited for the aid rendered. These papers may be sent at the end of the current year, and should embrace a consideration of the following subjects: medical topography; epidemic diseases, with their names, nature, character, local peculiarities, appearance, development and disappearance; thermometrical, barometrical, hygrometrical and other tables pertinent to the meteorology of the neighborhood. Information on any or all of these subjects is particularly requested.——It is stated by the editor of the Nashville Journal, for September, that when the writer entered the Kentucky School of Medicine the fee for professors' tickets was $120.00. This is a serious error, for the charge was at that time $60.00.——Dr. Bowling, of Nashville, charges the associate editors of this Journal with advertising themselves as specialists on the cover of the Journal!! What are the specialties there advertised? This writer also say "Bell once occupied that *bad eminence*," but he fails to describe how Bell slipped from it very suddenly and unexpectedly; how he held on tenaciously as long as he could; how severe the fall was; how it bruised poor Dr. Bell, and how he has since, under the subterfuge (as Dr. Davis, of Chicago, says), of replying to a just and caustic review which he has found unanswerable, abused the writer in every manner, shape and form. That unhappy fall hurt badly. It was a bad and fatal eminence to Dr. Bell.——The three Medical Schools of Louisville commenced their introductory courses about the middle of September. The at-

tendance of students is much larger than usual. It is to be hoped that petty jealousies, crimination, recrimination, etc., will be unknown here, and that these schools will, in a spirit of friendly rivalry, conspire to make Louisville, what she must be, the medical centre of the West. Six protessors have recently made their maiden efforts in the lecture-rooms, and they have been happy and fortunate in giving entire satisfaction.——Dr. H. R. Storer, in the last number of the Gynæcological Journal, still claims to have originated the operation of "pocketing the pedicle." The evidence given is not satisfactory or convincing. The letter of Spencer Wells is personally pleasant but professionally worthless.——Dr. Austin Flint, jr., has very justly been highly complimented in Paris for his original investigations, establishing a new function of the liver.——Dr. W. O. Baldwin, of Montgomery, Alabama, has recently presented to the editor of this Journal a newly imported and complete collection of papier-maché models, showing the anatomy of the abdominal and pelvic organs, and the gravid uterus with its contents in the first, second, third, fourth, eighth and ninth months of gestation; also, two specimens in papier-machè illustrating different conditions of extra-uterine pregnancy. This beautiful collection evinces the high degree of perfection which has been obtained in the manufacture of these preparations.——Drs. Joseph W. Benson and David Yandell, of this city, have each performed recently the operation of ovariotomy with success.——The troubles of the College of Physicians and Surgeons in this city have at last been settled. "Peace reigns in Warsaw."——Dr. John Ashhurst, jr., of Philadelphia, has just edited the finest and best edition of Erichsen's Surgery that has been published. The work reflects great credit upon author, editor and publisher.——The friends of Dr. Paul F. Eve will be glad to learn that his move to St. Louis

has been a complete success.——The editor is requested to state that Dr. Henry F. Lyster, of Detroit, Michigan, has been appointed by his State Medical Society to prepare a report on the operation of excision of the hip-joint. This gentleman will be thankful to his medical brethren for reports of cases known to them. The reports it is asked will give the following information—cause and condition of disease; name; age; sex; side of body; condition at time of operation; operation; progress of case and result; utility of limb; cause of death and duration of life in fatal cases; date and place of operation; operator and assistants; remarks. With the aid of such information, in detail, he expects to furnish a paper of great value, in which full credit will be given for all aid afforded him.——At the last meeting of the American Medical Association a plan was devised and put in operation for the establishment, development and preservation of a medical library, open to all members of the medical profession. This library will be located at Washington, D. C., and will, for building, curators, etc., be a source of no expense to physicians, as the librarian of the Congressional library has placed ample room and facilities at the command of those representing this collection. The Association has placed immediately in charge of this enterprise Drs. Robert Reyburn and J. M. Toner, of Washington, and the enterprise could not be in better or more efficient hands. These gentlemen will receive all books, papers, magazines, maps, manuscripts, etc., that may be sent to them, inscribing in or on the same the name and residence of the donor. Such a library is indeed a great want and it is to be hoped that it will meet with general aid and support.

BOOKS AND JOURNALS RECEIVED.

Practical Medicine. By Dr. Felix Von Niemeyer, Professor of Pathology and Therapeutics in the University of Tubingen. Translated from seventh German edition. By Drs. G. H. Humphreys and C. E. Hackley, New York. In two volumes. D. Appleton & Co., 1869. From the publishers.

Electricity in its Relations to Practical Medicine. By Dr. Moritz Meyer, Royal Counsellor of Health, etc. Translated from the third German edition, by Dr. W. A. Hammond, late Surgeon General U. S. A., etc., etc. D. Applegate & Co., New York, 1869. From the publishers.

Two Cases of Œsophagotomy, for the Removal of Foreign Bodies. Second edition Revised, with an additional Case. By David W. Cheever, M.D., Professor in Harvard University. Boston: James Campbell. 1868.

Transactions of the Maine Medical Association, for the years 1866, '67–'68. Portland, Maine, 1869. With respects of B. T. Buxton.

Florida and the South. A Guide Book. By D. G. Brinton, A.M., M.D. Philadelphia, 1869. From the author.

Trial of E. M. Yerger, before a Military Commission, for the killing of Brevet Col. J. G. Crane. Jackson, Miss., June, 1869.

Memoranda of University Clinic at Charity Hospital, New Orleans. Session 1868–69. By Professors Joseph Jones, M.D., Frank Hawthorn, M.D., T. G. Richardson, M.D., S. M. Bemiss, M.D., Warren Stone, M.D.

SUPPLEMENT.

Dr. T. S. Bell.—There is classic authority for saying, that it is an unpleasant duty to strip the lion's skin from an ass, and particularly from an old ass, but when this duty has already been nearly finished, it is charity to complete it; to release the convicted animal and to allow him, undisguised, to return to the wild freedom which he enjoyed before assuming the garb that covered him with disgrace.

In the July number of this Journal, Dr. Bell's pretensions as a critic were freely unmasked, and he was shown to be as foolish a pretender in English, medical and scientific criticism, as he is now universally confessed to be, in his ludicrous displays in connection with Scandinavia. After unmasking him fully, for the amusement of his enemies and the astonishment of his friends, he was charged with having been the author of five deliberate falsehoods. He has recently made another comic and lamentable appearance before the public, in the September number of the Nashville Journal, and in a characteristic article of thirty pages, wherein clownish ribaldry and obscene jest are ingeniously blended with a display of professional ignorance and personal infamy, he forfeits the respect of the few who entertained any respect for him, by adding to the five falsehoods, of his first article, five more equally atrocious and demonstrable. As these last falsehoods, unexposed, may affect the writer's professional character, he makes this brief reply.

In October last, the writer delivered a lecture, on "Tho Medical and Surgical Lessons of the War," as an Inaugural Address, before the Kentucky School of Medicine. This address was published by the class, and has since been twice republished by periodicals in this country. Dr. Bell, by the use of five willful falsehoods, attempts to demonstrate the author's errors in this lecture. These five falsehoods will now be briefly exposed. Dr. Bell's *criticisms* are unworthy of notice; to use his own word, they are "*puerile.*"

Dr. Bell asserts that the author erred when he stated that MacLeod laid down the general rule that the use of the trephine in gunshot wounds of the head was bad surgery. Those who have studied MacLeod knows that what the writer said of him is strictly true. Prof. J. L. Cabell, of the University of Virginia, one of the most compe-

tent surgeons in the United States, and chief of the University Hospital at Charlottesville, Va., during the entire war, gives eighteen cases of skull wounds, in the treatment of which the trephine was used. In his own language, it is stated that these cases "exhibit results differing remarkably from those announced by MacLeod in his 'Notes on the Surgery of the Crimean War,' both as to the mortality of cases of gunshot fractures of the cranium and as to the dangers incident to the use of the trephine." Cabell's cases were published in a number of this Journal for 1866. What can be said of a man like Dr. Bell, who pretends to know the teachings of MacLeod and does not even know how to spell his name? Dr. Bell says that "the principles respecting the trephine (instead of the use of the trephine) *uttered* by Dr. Gaillard, if carried into practice, would be murderous." This is a model sentence; but apart from its foolish errors, the principles in regard to the use of the trephine, as advocated by the writer, have given the best results on record. So much for falsehood number one.

Dr. Bell next asserts that the writer has been guilty of the error of saying that gunshot wounds never heal by first intention. He then makes a pedantic display of information, familiar to every tyro, with the view of proving that gunshot wounds do heal by first intention. This characteristic sophistry and dishonesty is easily met; a child could expose it. The writer said, what is taught in all surgeries, that the rule laid down by surgical authors to the effect that gunshot wounds do not heal by first intention is too absolute. In proof of this, he cited the results derived from circulars sent to the field surgeons of the Confederate service. So much for falsehood number two.

Next Dr. Bell states that the writer was guilty of misrepresentation when he (the writer) said that the surgical records of the war sustained him in asserting the fallacy of the old surgical aphorism, "denuded bone will die." Dr. Bell asserts that the writer "had not any surgical records of the war to help him, and this statement in the introductory lecture is mere moonshine." When one who still aspires to the position of a gentleman makes such statements, it is naturally anticipated that he can prove their truth, but Dr. Bell is so accustomed to the enactment of the moral enormity of making injurious statements without a shadow of truth or authority as a basis for them, that any demonstration of proof of his correctness is not only habitually but most conveniently omitted. The views of the author on the subject of "The Relations of the Periosteum to Osteogenesis" are given (as Dr. Bell well knows), with illustrative cases, in the Richmond Medical Journal for 1866, and though some wiseacres did at the time dispute the teachings there inculcated, other cases, since published, and the conclusive experiments of Ollier show that the views advocated by the author are indisputably correct. The cases thus published by the writer were first published in the Confederate States Medical Journal for August, 1864, though Dr. Bell in his article dishonestly asserts that the writer, in his lecture, made statements which he never could authenticate or sustain, until the publication of Ollier's work in 1868—Ollier's work was issued in 1868; the writer's proofs were given by published cases in 1864. So much for falsehood number three.

Next, Dr. Bell asserts that the writer stated in his lecture that the lessons of the war first proved that measles, small pox, scarlatina, etc., to be self-limiting in duration. He uses the writer's language to sustain this falsehood in the following knavish manner: The names of the diseases, as extracted from one portion of the lecture, are given, and then the expression "self-limiting," taken from another portion of the lecture, is added. Such prestigiation is too base to be sufficiently characterized. Just at this part of his article Dr. Bell gives the usual pedantic display of lore so easily extracted from any book in the library. It can scarcely be credited that any one could (even allowing that he had no principle) resort to such transparent fraud. So much for Dr. Bell's fourth falsehood.

In the fifth falsehood he exhibits not only a total want of moral rectitude, but a want of that ordinary sense possessed even by the unprofessional mind in connection with the subject discussed.

The writer stated in his inaugural address that "Tetanus was com-

paratively a rare incident in the practice of Confederate surgeons, this result being conspicuously due to the fact that the wounded were treated in open tents, or in hospitals unceiled or unplastered." Dr. Bell asserts, without having any evidence to sustain him, that this stetement is incorrect, and resorts to palpable misrepresentation or falsehood to try and destroy the truth of the writer's statements. The amusing part of this matter, however, constitutes one of those comic episodes of the many in Dr. Bell's life, tending to show his gross ignorance and customary pretension. He says Chisolm asserts "that tetanus cannot infect a hospital;" therefore ceiled hospitals cannot tend to the creation of tetanus. Was there ever such nonsense written by any medical man not wholly idiotic? The writer asserted the truth, known by every first-course student, that free ventilation and pure air tended to prevent tetanus. Poor Dr. Bell supposed that the writer attributed such freedom from tetanus in ceiled hospitals to the fact that there was no plastering; therefore there could be no infection, and if no infection, there could be no tetanus! Here is a comic and refreshing phase in the life of one who affects wisdom on this subject.

Were it not to expose these five falsehoods contained in Dr. Bell's last article, added to the five others, tacitly acknowledged, in his previous article, the writer would not now waste time or attention upon this pachydermatous fiction-monger further than to give him the benefit of the opinions of the medical press in regard to his enviable record; as, however, the pen is in hand for this purpose, it may be well to mention a few other falsehoods, small comparatively, but sufficient each to cover any one else with disgrace.

First, Dr. Bell asserts that the writer gives editorial notices for remuneration; they are called by Dr. Bell "percentage notices." This is one falsehood. Again he says that he has good authority for stating that the editor is writing "whimpering, whining letters to other editors, asking them to hold him up and condemn me." When asked, through a polite note borne by a friend, for his authority, he declines to make a personal matter of his assertion, and gives no authority. He avoids all personal responsibility for his falsehoods, yet he states that it is a *calumny* for the writer to state what he did state in the July *supplement;* that Dr. Bell uses "his gray hairs and his professions of religion as a shield to protect him in his coarse impertinencies."

Next, Dr. Bell says that the writer misrepresented the atrocious and ungentlemanly and obscene assault made by Dr. Bell upon Dr. Breckinridge through the columns of the daily press. The writer's comments were read to Dr. Breckinridge, and he will be pardoned for saying that, in a question of veracity between Dr. Breckinridge and Dr. Bell, he could not possibly attach any weight to the statements of Dr. Bell. Dr. Bell has been made to feel his error by the public, and he has in his last article played the part of the contemptible sycophant to Dr. Breckinridge and his friends.

Dr. Bell charges the writer with having asserted that he (Bell) was trained to the use of the "thimble." This falsehood is demonstrable to every one who has read what the writer has written. He has not said a word in regard to the "thimble" employment of Dr. Bell, for he thinks it was not only honorable, but suitable employment, and that it would have been far more honorable in its results had such an occupation never been abandoned.

Again, Dr. Bell, in his constant efforts to appear wise, states that the anecdote of the Brahmin student and the fly (quoted by the editor for the instruction of Dr. B. F. Dawson, of N. Y.,) is incorrect, etc. He says it is the old anecdote of "Uncle Toby," written by Lawrence Sterne. Poor Dr. Bell does not know that Sterne himself borrowed the story.

Finally, Dr. Bell makes the very truthful statement that he has avoided all personalities and that he has tried the writer "on his public positions alone." What can be said of one who makes use of such language, after writing fifty pages of abusive personalities, and after reading (as he admits) the writer's private correspondence to obtain

the means of making statements, the truth of which he is actually afraid to substantiate? Perhaps the severest language that can be used in regard to Dr. Bell is that which he uses in regard to himself. He charges the writer with having selected him (Dr. Bell) for a topic, because he was writing for "those who have a penchant for luscious filth, and who can smack their lips over carrion."

As to the remainder of Dr. Bell's long article, it is only necessary to say that it consists of silly and childish criticism, or what Dr. Bell terms "*puerile*" criticism. A fair sample of the whole may be given. The writer stated that the war lasted "for four long years." In regard to this statement, this poor old simpleton says they were not "long years, for we knew that those years consisted of just three hundred and sixty-five days," not 365 days each, but 365 days, including even the leap year. If Dr. Bell had been identified with either army in the field, with all the attendant trials, dangers, sufferings, wretchedness, disasters and sorrows, he would have indeed found those "long" years; but occupying, as he did, the comfortable, honorable, lucrative position of recruiting officer for negro regiments to be sent against Southern men, and the equally lucrative and distinguished position of grand high Janizary of "the draft," not to mention the reputable office of secret informer and persecutor of those amongst whom he had acquired all that he had ever possessed, it is not surprising that he did not find those years "*long*" years, but that they "consisted of just 365 days!" Ah! to the hearts of the million afflicted; to the sorrow-stricken; to the patriot; to the statesmen; to the brave soldiers; to those who hoped against hope, and toiled on when all hope had fled, those were indeed *long, long years;* but to the Janizary of the draft, and to the recruiter of negro regiments, they were *just* 365 *days long!* Had Dr. Bell been taught the moral, physical and mental lessons of bitter and terrible campaigns, he would not look back, as he does, to those days; days to him of personal gratification and pecuniary profit. He, however, had no campaigns other than those brief ones after the ludicrous "double-quick, without baggage," across the Ohio, whenever he heard that the "boys in gray" were over the border. If this facetious recruiting officer would recall those hours and days when he campaigned in Jeffersonville or New Albany because there was a *rumor* that the "boys in gray" were coming, he will not again allude in jest to the sadly true expression that those years of war were indeed "*four long years!!*"

One of the greatest absurdities known to the writer, as well as to Dr. Bell, is this assertion of Dr. Bell, in his article: "I am quite sure that there is no member of the medical profession who dislikes and loathes professional strife more than I do; nor can any one more sedulously avoid giving occasion for anything of the kind." It is notorious that, for thirty years, the writer of that monstrous assertion has lost no possible occasion for attacking every one *with his pen* whom he thought he could attack with impunity. So far has this been the case that it is one of the chief causes of Dr. Bell's personal, professional and social failure in this city. He stands this day in Louisville a complete failure; and this failure is largely due to the very cause that he now affects to repudiate. It is in consequence of this vice that this poor man has now had the lion's skin, in which he essayed to array himself, cleanly stripped from him.

Some allusion must now be made to one of the most absurd and ludicrous events in Dr. Bell's very ludicrous history. In the writer's lecture on "The Medical and Surgical Lessons of the War," as published in the *New Eclectic Magazine* (Baltimore) for June, 1869), there occurs a few typographical errors, as the result of which one of the writer's own paragraphs appears as an extract, while several sentences from a lecture of Dr. Samuel Gross, of Philadelphia, which should have had the usual extract or credit marks (" ") are published as the original remarks of the writer. Dr. Bell, ignorant, most unhappily, of this fact, selects some of these sentences of Dr. Gross and supposing them to have been written by the author of the lecture under review, levels against them a sample specimen of his popgun fusillade. Some of his friends, recognizing the absurdity of his error

in criticising Dr. Gross, inform him of his foolish mistake, when the mortified and discomfited critic adopts the only redress in his power. He resorts to the expedient of publishing a *postscript* to the scurrilous pamphlet, which he then distributed generally to the professional and unprofessional throughout this city. This postscript was intended to convict the writer of plagiarism by containing on one side of a page the writer's language as published in his lecture and on the other side of the same page Dr. Gross' language as extracted by the writer from Dr. Gross' pamphlet. As the writer made the extract from Dr. Gross' pamphlet it is not very astonishing that the language of Dr. Gross and his own are identical. This Dr. Bell seizes upon and publishes as a gross plagiarism, monstrous conduct, etc., etc. He did not know that as soon as the writer's lecture was published in the Baltimore Magazine, June, 1869, he wrote to Dr. Gross regretting the typographical errors, and received from that gentleman the following note:

PHILADELPHIA, June 29th, 1869.

MY DEAR DOCTOR: It was hardly necessary to send me an excuse for the printer's blunders in the Baltimore Magazine. No one who knows anything of your character would accuse you of unfairness in any thing. * * * * * * * *

Wishing you health and prosperity, I am very truly your friend,

(Signed,) S. D. GROSS.

Dr. Bell, however, committed a still more silly blunder in this connection. When he supposed that he was criticising the writer's language, there were no terms of abuse sufficient for his purposes, but when he finds that the language criticised is from the pen of Dr. Gross, his sycophancy destroys his common sense, his judgment and his memory, and he eulogises in a manner absolutely disgusting the very language that he had so violently condemned!! What honesty and what fairness there is in this honorable transaction!! What character and truth are here displayed!!

To place the writer, however, in a helpless condition, Dr. Bell states that even were there credit marks in the writers original manuscript there was nothing said when the lecture was delivered to indicate this fact. This may or may not be true. The writer does not know whether the extracts were then indicated verbally or not; but assuming that this was not done, he knew that his lecture would certainly be published and that the credit marks would fully indicate all that was original and all that was not original in the material of which the lecture was composed.

It is certainly fair to try a lawgiver by his own laws, and if this is done Dr. Bell loses the last vestige of honesty and propriety that he ever possessed. In the opening pages of his famous lecture on Scandinavia (which he did *not* expect would be published) there is material extracted from a foreign source, yet, neither verbally nor in the published lecture, was this fact indicated—more than this: this lecture on Scandinavia is *made up* of material taken from well known works and from proof-sheets of a work in press, yet these facts are carefully concealed!!

When the writer promised, in late Journals, to amuse himself by noticing Dr. Bell and his curious caricatures of criticism, he did not know the moral character, the baseness of the man whom he has since unmasked and exposed. When an individual is detected in repeated falsehoods of the grossest character, when he makes constant false statements and denies all personal responsibility for them, there is but one course for a gentleman to adopt, and that is, to hold such a man up to the contempt of the public, and then to dismiss him, finally and forever, as unworthy of notice. This course is doubly imperative when such a person selects, as his publisher, as the bearer of his communications; one who has long since forfeited the respect, the confidence or the notice of gentlemen.

Drs. Bell and Bowling will of course reply, as they have been informed that they can do so with impunity, but these replies can never again secure the writer's attention. These worthies, unmasked as the authors of numerous and malignant falsehoods, have reached that condition, when it is impossible for the writer to respect or notice them.

HART & NAPOTHER LITH. LOUISVILLE KY.

Dan'l Drake, M.D.

THE RICHMOND AND LOUISVILLE

MEDICAL JOURNAL.

VOL. VIII. NOVEMBER, 1869. No. 5.

ORIGINAL COMMUNICATIONS.

"Qui Docet Discit."

ART. I.—OBSERVATIONS UPON THE LOSSES OF THE CONFEDERATE ARMIES FROM BATTLE, WOUNDS AND DISEASE DURING THE AMERICAN CIVIL WAR OF 1861–1865, WITH INVESTIGATIONS UPON THE NUMBER AND CHARACTER OF THE DISEASES SUPERVENING UPON GUN-SHOT WOUNDS. By JOSEPH JONES, M.D., Professor of Chemistry in the Medical Department of the University of Louisiana, and Secretary to the Southern Historical Society, New Orleans, La.

NO. II.

The next subject which demands our attention, is the relations of the losses by Battle, Wounds and Diseases, and Prisons, to the forces called into service by the Confederate Government during the war.

And first, as to the resources and the available fighting population of the States comprising the Southern Confederacy.

According to the census of the United States for 1860, the fifteen slave-holding States contained 12,240,000 inhabitants, of whom 8,039,000 were whites, 251,000 free colored persons, and 3,950,000 slaves. The nineteen free States and seven territories, together with the Federal district, contained 19,203,008 persons, of whom 18,920,771 were whites, 237,283 free colored and 41,721 civilized Indians.

In 1860, the entire population of the United States was 31,443,008; and of this number the whites constituted 26,959,771.

The exact population of the States which seceded and endeavored to set up for themselves a separate nationality, under the name of the Confederate States of America, cannot be determined, for the following reasons: Kentucky at first assumed a neutral position, but was overpowered and her government, and a large proportion of her population took sides with the North. Whatever may have been the sympathies of her people, her moral influence and her physical strength were given to the Federal Government. In making this statement, we do not forget that large band of brave warriors who forsook their native State, their homes and their kindred, and bore the Confederate flag upon every battlefield and followed, with undaunted spirit, the fortunes of the government of their choice up to the last moment of its existence.

In like manner, Missouri was over-run at an early stage by Federal troops, and her resources and physical strength subdued by force to the United States.

The number of men added to the Confederate army from these two States, did not, perhaps, materially exceed the accessions to the Federal army from Western Virginia, East Tennessee and the mountainous portions of North Carolina, South Carolina, Georgia and Alabama.

In estimating the strength of the Southern Confederacy, it might not be improper to reject the population of Kentucky and Missouri.

In addition to the reasons just given for this method of computing the strength of the Confederate States, it should be added, that 180,017 colored troops were enlisted in the Federal army during the war; and it may be said that this immense body of men were furnished almost

exclusively by the Southern States. The colored troops alone formed a body at least twice as large as the number of soldiers added to the Confederate armies from the States of Missouri and Kentucky.

The following table presents a general view of the population and available fighting population, or white males between eighteen and forty-five years, of the States composing the Southern Confederacy, according to the United States census of 1860.

State.	White Pop'l'tion.	Free Col'd Pop'l'tion.	Slave Population.	Total Population.	Available Fighting Pop'l'ti'n, white males, between 18 & 45.
Virginia	1,047,299	58,042	490,865	1,596,818	196,587
North Carolina	629,942	30,463	331,059	992,622	115,369
South Carolina	291,300	9,914	402,406	703,706	55,046
Georgia	591,550	3,500	462,198	1,057,286	111,005
Florida	77,747	932	61,745	140,424	15,739
Alabama	526,271	2,690	435,080	964,201	99,967
Mississippi	353,899	773	436,631	791,305	70,295
Louisiana	357,456	18,647	331,726	708,002	83,356
Arkansas	324,143	144	111,115	435,450	65,231
Texas	420,891	385	182,566	604,215	92,145
Tennessee	826,722	7,300	275,719	1,109,801	159,353
Missouri	1,063,489	3,572	114,931	1,182,012	232,781
Kentucky	919,484	10,684	225,483	1,155,684	180,589
Total	7,430,193				1,487,563

If the population of Missouri and Kentucky be excluded, for the reasons before stated, then the white population of the late Confederate States, at the commencement of the recent struggle, amounted to only 5,447,220.

In like manner if the available fighting population (white troops between 18 and 45 years of age) of Missouri and Kentucky, be excluded, the available fighting population of the late Confederate States at the commencement of the war, was 1,074,193.

The available fighting population of the entire United States, according to the census of 1860, was 5,624,065.

If Kentucky and Missouri be included with the Confederate States, then we have, on the one hand, 1,487,563

white males between the ages of 18 and 45, opposed to 4,136,502, on the side of the North. That is, upon the most liberal estimate, the available fighting population of the Northern States was three times as great as that of the Southern States.

If, however, Kentucky and Missouri be excluded from the Confederate States and their forces be added to those of the Northern States, then we will have, on the part of the former, 1,074,193 white males between 18 and 45, opposed to 4,549,872 on the side of the latter.

If this mode of calculation be accepted, the Northern States had more than four times as many available fighting men.

Pennsylvania and New York alone had a larger number of white males between the ages of 18 and 45, than the entire Southern Confederacy.

Owing to the great tide of immigration which swept continuously from Europe to the United States and rolled over the continent from East to West, the number of males was considerably greater than that of females in the Western States, and the population of one-fifth of the total population representing very nearly the number of males between the ages of eighteen and forty-five did not hold good in the more newly settled Western States. As the emigrating ages are allied to the military ages in the newly settled States of the West, the proportion of fighting men was, as a general rule, greater than in the older Atlantic and Southern States.

Thus beginning at the East and proceeding Westward, the number of white males, from 18 to 45, was in Maine 19.5 per cent. of the whole population; in New York 20.8 per cent.; in Illinois 22.1 per cent.; in Minnesota 33.8, and in California 47.1 per cent. A similar but less marked proportion existed in the Southern States; thus, Virginia 18.7 per cent., South Carolina 18.9 per cent., Arkansas 20.1 per cent., and in Texas 21.9 per cent.

The great resources of the United States in available fighting material is well shown in the excess of the male population, when compared with that of the other sex, and the marked difference which this country presents with respect to the population of other countries. While in the United States and Territories, there was in 1860, an excess of about 730,000 males in more than 31,000,000 of people, the females of the United Kingdom of Great Britain and Ireland, outnumbered the males some 877,000 in a population of little more than 29,000,000.

The males of California outnumbered the females near 67,000, or about one-fifth of the population; in Illinois, the excess of males amounted to about 92,000, or one-twelfth of the entire population; in Massachusetts, the females on the other hand outnumbered the males some 37,600, whilst Michigan shows near 40,000 excess of males, Texas 36,000, Wisconsin 43,000.

The following table will present the population and available fighting population, in the Northern States, according to the United States census of 1860.

States and Territories.	Pop'l'tion 1860.	Available fighting pop'l't'n, white males between the ages of 18 and 45.
California	379,994	169,975
Connecticut	460,147	94,411
Delaware	112,216	18,273
Illinois	1,711,951	375,026
Indiana	1,350,428	265,295
Iowa	674,913	139,316
Kansas	107,206	27,976
Maine	628,279	122,238
Maryland	687,049	102,715
Massachusetts	1,231,066	258,419
Michigan	749,113	164,007

Minnesota	172,023	41,226
New Hampshire	326,073	63,610
New Jersey	672,035	132,219
New York	3,880,735	796,881
Ohio	2,339,511	459,534
Oregon	52,465	15,781
Pennsylvania	2,906,215	555,172
Rhode Island	174,620	35,502
Vermont	315,098	60,580
Wisconsin	775,881	159,335
Colorado Territory	34,277	76,214
Dakota Territory	4,837	
Nebraska Territory	28,841	
Nevada Territory	6,857	
New Mexico Territory	93,516	
Utah Territory	40,273	
Washington Territory	11,594	
District of Columbia	75,080	12,797

A small portion of the Territories sided with the Southern States (Indian Territory and portions of New Mexico), but owing to their small population it was deemed necessary to consider them apart from the other Territories.

The disparity between the Confederate and Federal States was still further increased by the tide of immigrants which had always poured and which continued to flow into the latter during the entire progress of the war.

The population of the United States has increased in the following rapid ratio:

1800	5,305,925
1810	7,239,815
1820	9,638,121
1830	12,866,020
1840	17,069,453
1850	23,191,876
1860	31,429,891

There is nothing in the old world to equal this rate of progress, and *immigration* is the cause to which we must attribute this great increase of population in America.

It has been mathematically demonstrated that if the United States, in the year 1800, had been in the same cir-

cumstances as Great Britain—that is, if there had been no immigration, and the increase of her population had arisen from natural causes only—the free white and colored people of the United States would, at the present time, have numbered only 10,463,000, or one-third of the whole present population. And it has been estimated that of the whole population in 1863, the immigrants of the present century and their descendants number more than 21,000,000, or two-thirds of the whole.

Prior to 1820, no returns were taken of the number of aliens landing in the United States. It is estimated that there were about 70,000 arrivals between 1800 and 1810, and about 114,000 between 1810 and 1820. From 1820, there are official records of the number of immigrants, and these details are of great moment in their relations to the recent civil war.

Year.	*Immigrants.*	*Year.*	*Immigrants.*
1820	8,385	1841	80,289
1821	9,127	1842	104,565
1822	6,911	1843	52,496
1823	6,354	1844	78,615
1824	7,912	1845	114,371
1825	10,199	1846	154,416
1826	10,837	1847	234,968
1827	18,875	1848	226,527
1828	27,382	1849	297,024
1829	22,520	1850	369,980
1830	23,322	1851	379,466
1831	22,633	1852	371,603
1832	60,482	1853	368,695
1833	58,640	1854	427,833
1834	65,365	1855	200,877
1835	45,374	1856	200,436
1836	76,242	1857	251,306
1837	69,340	1858	123,126
1838	38,914	1859	121,282
1839	68,069	1860	153,640
1840	48,066		
Total			5,062,414

Of this total there were—

Males	2,977,603
Females	2,035,536
Sex not stated	49,275
Total	5,062,414

Immigration has increased in decennial periods in the following proportions:

In the 10 years ending 1829,	128,502
" " " " " 1839,	538,381
" " " " " 1849,	1,427,337
" " 11 " " 1860,	2,968,194
	5,062,414

The greater portion of these immigrants were of the age best fitted for labor and military service. The records show that upward of 50 per cent of the whole were between fifteen and thirty years of age—only 10 per cent. were above forty, and only 8 per cent. under five.

Of this vast number Great Britain and Ireland have contributed more than one half, viz: 2,750,874; Germany 1,486,044; France 208,063, and Prussia 60,432. Even China contributed during this period 41,443, and this class of laborers are looked to by many as the chief instrument for the successful cultivation of the rice and sugar lands of the South.

It has been calculated, though on imperfect data, that each immigrant who lands in America brings with him an average sum of sixty-eight dollars, and the United States officials calculate that, up to 1860, the immigrants have brought into the United States not less than $400,000,000 of cash, besides the far greater values represented by their physical, intellectual and moral powers.

The ultimate destination of the immigrants has, without doubt, been affected materially by the ports at which they arrived, but there were other causes intimately connected with free and slave labor, which guided this great

tide of immigration into the Northern and Western, rather than into the Southern States, as will be seen by the following table:

Percentage of Native and Foreign Populations, According to Census of 1860.

State.	Native.	Foreign.
California	52.02	47.98
Wisconsin	64.31	35.69
Minnesota	66.22	33.78
New York	74.27	25.73
Rhode Island	78.58	21.42
Massachusetts	78.87	21.13
Michigan	80.09	19.91
Illinois	81.03	18.97
Virginia	97.81	2.19
South Carolina	98.58	1.42
Tennessee	98.09	1.91
Alabama	98.72	1.28
Georgia	98.90	1.10
Mississippi	98.92	1.08
Arkansas	99.14	0.86
North Carolina	99.67	0.32

The greater spread of the tide of immigration in the Northern than in the Southern States, is still further shown by the constitution of the population of some of the most populous cities, those numbering over 40,000 inhabitants.

City.	Total Population, 1860.	Population, Foreign.	Percentage Foreign Population.
New York	805,657	383,717	47.62
Philadelphia	585,529	169,430	28.93
Brooklyn, N. Y.	266,661	104,589	39.22
Baltimore	212,418	52,497	24.71
Boston	177,812	63,791	35.88
New Orleans	168,675	64,621	38.31
Cincinnati	161,044	73,614	45.71
St. Louis	160,773	96,086	59.76
Chicago	109,260	54,624	49.99
Buffalo, N. Y.	81,129	37,684	46.44
Newark, N. J.	71,914	26,625	37.02
Louisville, Ky.	68,033	22,948	33.78
Albany, N. Y.	62,367	21,619	34.66

Washington.....	61,122	10,765	17.61
San Francisco.....	56,802	28,454	50.09
Providence, R. I.....	50,666	12,570	24.80
Pittsburg, Pa.....	49,217	18,063	36.70
Rochester, N. Y.....	48,204	18,897	39.20
Detroit, Mich.....	45,619	21,349	46.79
Milwaukee, Wis.....	45,246	22,848	50.49
Cleveland, O.....	43,417	19,437	44.76
Charleston, S. C.....	40,578	6,311	15.55

Whilst the newly settled cities of the North and Northwest, such as Chicago, Milwaukee and Buffalo have the largest proportion of foreign settlers, and whilst New York itself and the cities in that State have the largest *number* of such residents, the city of Charleston, though situated on the sea-board and enjoying an extensive commerce, has by far the smallest resident foreign population of all the cities of the United States, numbering over 40,000 inhabitants, and consequently has increased in population in the smallest ratio.

It may then with truth be said, that the odds against the Southern Confederacy were vastly augmented by the tide of immigrants pouring continuously into the Northern and Western States, and from this source alone, during the last fifteen years—1850–1865—the Northern States derived a fighting population equal to that of the entire Southern Confederacy. During the war the Southern States were cut off from the rest of the world, being without a navy and with their ports blockaded by a vigilant and powerful marine; whilst on the other hand the Northern States had the most populous nations of Europe, and Canada, and the Southern slaves as a recruiting ground for their vast armies.

Another element to be considered in this calculation, is the relative proportion of the slaveholders and non-slaveholders in the Southern States.

The position of the South with reference to slavery is shown in the following table:

The Number of Slaveholders and Slaves in the United States in 1860.

State.	Number Slaveholders.	Number Slaves.
Virginia	52,128	490,865
Georgia	41,084	462,198
Kentucky	38,645	225,483
Tennessee	36,844	275,719
North Carolina	34,658	331,059
Alabama	33,730	435,080
Mississippi	30,943	436,631
South Carolina	26,701	402,406
Missouri	24,320	114,931
Louisiana	22,033	331,726
Texas	21,878	182,566
Maryland	13,783	87,189
Florida	5,152	61,745
Arkansas	1,149	111,115
Delaware	587	7,798
Total	383,637	3,950,513

It has been shown by this table that out of a population of 12,000,000, the slaves numbered nearly 4,000,000, whilst the whites numbered 8,000,000, and of this number only 383,000 were slaveholders. The number of free whites, therefore, who did not own slaves were vastly greater than the slaveholders.

The slaveholders were distributed over an immense territory and bore a very small proportion to the aggregate population of the United States.

The area and density of the population in the different sections is given in the following table:

States.	Area in Square Miles.	Population.	No. Inh'bitants to sq're mile.
New England States (6)	62,116	3,135,283	50.47
Middle States, including Md., Del., and O. (6)	151,760	10,597,661	69.83
Coast Planting States (slave), including S. C., Ga., Fla., Ala., Miss., and La. (6)	286,077	4,364,927	15.25
Central Slave States—Va., N. C., Tenn., Ky., Mo., and Ark., (6)	309,210	6,471,887	20.93
Northwestern States—Ind., Ill., Wis., Mich., Ia., and Minn. (6)	337,957	5,436,176	16.08
Texas	237,331	604,215	2.55
California	188,982	379,991	2.01

The following table will show that the average number of slaves held by each owner was little more than ten, and that the number of owners holding more than twenty slaves was not more than 45,000 out of the whole 383,637.

Slaves Held by Slaveholders.

Holding 1 slave	76,670
2	45,934
3	34,747
4	28,907
5	24,225
6	20,600
7	17,235
8	14,852
9	12,511
10 and under 15	40,367
15 " 20	21,315
20 " 30	20,789
30 " 40	9,648
40 " 50	5,179
50 " 70	5,217
70 " 100	3,149
100 " 200	1,980
200 " 300	224
300 " 500	74
500 " 1,000	13
1,000 and over	1
Total	383,637

The deduction has been drawn from these statistics, that a great proportion of the land in the Southern States was held by a comparatively few large proprietors, and that a large proportion of the white population in the South has been extremely poor.

Large tracts of the Southern States, as the pine barrens and sand regions of Virginia, North Carolina, South Carolina and Georgia, were sparsely inhabited by whites who owned few or no slaves, and supported themselves in a large measure by their herds of cattle.

As the war progressed great dissatisfaction sprang up in those sections of the Southern States which were set-

tled by the poorer class of whites. After the march of General Sherman through Georgia, large numbers of troops raised in the piney-woods and wire-grass regions deserted, and organized themselves into companies and regiments, and upon several occasions, resisted the Confederate troops, and were prepared to coöperate with the United States forces. The same state of affairs existed in certain sections of all the Southern States.

The slave population was at the same time the source of great strength and of great weakness in the recent struggle.

On the one hand, they aided materially in the construction of earthworks around the sea-port cities and towns of the Confederate States and in those portions of the country removed from the actual operations of contending armies, or the occupation of the Federal forces, they remained quietly on the plantations, attending to the peaceful pursuits of agriculture. It is a noteworthy fact that the negroes, as a class, refrained from all outbreaks or insurrections, even in those portions of the Southern States in which they had largely the ascendency in numbers, and in which there remained only the old men, women and children. In the latter periods of the war, the negro men were to a certain extent, as teamsters, attached to the armies.

On the other hand, vast numbers deserted to the enemy, and as we have before stated, one hundred and eighty thousand and seventeen enlisted in the Federal army and thousands were employed in various capacities, as cooks, teamsters and servants.

In addition to this, the colored population furnished at all times the most valuable information to the Federal commanders and troops. They pointed out to the advancing armies the safest and best routes, and betrayed every fact of importance confided to them by their mas-

ters, thus exposing to the enemies of the Southern Confederacy, alike the hidden resources and treasure of the white people.

In the absence of the Adjutant General's reports of the Confederate forces it is impossible to determine with accuracy the number of men called into actual service by the Confederate Government.

The Congress of the Confederate States of America, enacted, on the 26th of February, 1861, and on the 6th of March, 1861, that the regular army should embrace the General Staff, consisting of an Adjutant and Inspector General's department, Quartermaster General's department, Subsistence department, and the Medical department; that the Military establishment shall be composed of the corps of engineers (consisting of one colonel, four majors, five captains, one company of sappers, miners and pontooniers); one corps of artillery (consisting of one colonel, one lieutenant colonel, ten majors, and forty companies of artillerists and artificers), six regiments of infantry and one regiment of cavalry. The five Brigadier Generals of the regular army, created under the act of March 6th and 14th, 1861, were afterwards, by act of May 16th, 1861, raised to the rank of General, which was constituted the highest military grade known to the Confederate States. The regular army of the Confederate States was originally of insignificant proportions and apparently was planned for a state of peace rather than of war.

On the 28th of February, 1861, the President was authorized by Congress to receive into the service of the Government such forces in the service of the individual States as may be tendered, or may volunteer by the consent of their State, in such numbers as the President may require, for any time less than twelve months, unless sooner discharged. Such forces were received, with their officers, by companies, battalions or regiments, and

formed part of the provisional army of the Confederate States according to the terms of their enlistment.

On the 6th of March, 1861, Congress enacted "That in order to provide speedily forces to repel invasion, maintain the rightful possession of the Confederate States of America in every portion of territory belonging to each State and to secure the public tranquility and independence against threatened assaults, the President be and he is hereby authorized to employ the militia, military and naval forces of the Confederate States of America, and to ask for and accept the services of any number of volunteers, not exceeding *one hundred thousand*, who may offer their services, either as cavalry, mounted riflemen, artillery or infantry, in such proportion of these several arms as he may deem expedient, to serve for twelve months after they shall be mustered into service, unless sooner discharged."

By act of May 8th, 1861, the President was authorized to accept the services of volunteers, who may offer their services, without regard to the place of enlistment, either as cavalry, mounted riflemen, artillery or infantry, in such proportion of these several arms as he may deem expedient, to serve for and during the existing war, unless sooner discharged.

This was in addition to the volunteer force, authorized to be raised under existing laws. On the 11th of May, of this same year, the President was further authorized by Congress to receive into service such companies, battalions or regiments, either mounted or on foot, as may tender themselves, and he may require, without the delay of a formal call upon the respective States, to serve for such time as he may prescribe.

The Confederate Congress, on the 8th of August, 1861, called for four hundred thousand volunteers for not less than twelve months, nor more than three years.

On the 16th of April, 1862, the Congress of the Confederate States of America passed an act conscribing all white men between eighteen and thirty-five years of age.

This act was amended on the 27th of September, 1862, so as to embrace all white men between thirty-five and forty-five years of age; so that at this time the President was authorized to call out and place in the military service of the Confederate States, for three years, unless the war should have been sooner ended, the entire available fighting population of the Confederate States, viz: All white males, capable of bearing arms, between the ages of eighteen and forty-five.

That this sweeping act of conscription might be carried out fully and efficiently, it was ordered that all persons between these ages, subject to enrolment for military service, should be enrolled under instructions from the War Department and reported by the enrolling officer wherever found, whether within the State or county of his residence or not; and when so enrolled should be subject to the provisions of law, as fully as if enrolled within the county and State of which they might be residents.

The substitute system was abolished on the 28th of December, 1863, and no person liable to military service was thereafter permitted or allowed to furnish a substitute for such service, and the reception, enlistment, or enrolment of substitutes was absolutely prohibited in the military service of the Confederate States; and on the 5th of January, 1864, all exemptions from military service on the part of those who had furnished substitutes were revoked, and it was ordered by the Confederate Congress, "That no person shall be exempted from military service by reason of his having furnished a substitute."

The act of conscription was still further extended on

the 17th of February, 1864, so as to embrace all white men between *seventeen* and *fifty*. From and after the passage of this act, all white men, residents of the Confederate States, between the ages of seventeen and fifty, were conscribed into the military service of the Confederate States for the war. This act was so rigid and searching that no person was relieved from its operation by reason of having been heretofore discharged from the army; all were alike subject to the call and examination of the enrolling officer, and even where the subjects were unfit for active service in the field, they were assigned to some one of the departments or bureaus.

All the white male residents of the Confederate States, between the ages of seventeen and eighteen, and forty-five and fifty years were constituted a *reserve* for State defence and detail duty, and were not required to perform service out of the State in which they resided; the men embraced in this last call should not, therefore, be regarded as forming part of the forces actively engaged in the field, although they rendered efficient services upon several battle-fields and aided materially in repulsing raids and in guarding Federal prisoners.

In order that every able bodied man might be actively employed at the front, in the military service, it was ordered on the 17th of February, 1864, that the duties of provost and hospital guard and clerks, of clerks, guards, agents, employees or laborers in the Commissary's and Quartermasters' department, and clerks and employees of Navy agents, and of those engaged in the execution of the enrolment acts, and all similar duties, should be performed by persons within the ages of eighteen and forty-five years, who, by the reports of a board of army surgeons, shall be reported as unable to perform active service in the field, but capable of performing some of the above named duties.

It was also enacted, at the same time, "That all male free negroes and other free persons of color, not including those who are free under the treaty of Paris of 1803, or under the treaty of Spain, of 1819, residents in the Confederate States, between the ages of eighteen and fifty years, shall be held liable to perform such duties with the army, or in connection with the military defences of the country in the way of work upon fortifications or in government works for the production or preparation of materials of war, or in the military hospital, as the Secretary of War or the Commanding General of the Trans-Mississippi department may from time to time prescribe."

We have in the preceding record, a simple statement of the gigantic nature of the recent struggle, and of the sweeping and stringent nature of the acts of conscription, which compelled every man capable of bearing arms to meet the enemy upon the field, and at the same time apportioned those disabled by disease and wounds, who were capable of performing any service whatever to the various departments and bureaus.

We have shown that in the earlier periods of the war, the available fighting population of the Confederate States btween the ages of eighteen and forty-five was, in round numbers, about one million.

The acts of conscription embraced this entire body, and also extended to those between the years of seventeen and eighteen and between forty-five and fifty.

From time to time acts of exemption were passed by the Confederate and State governments, relieving from actual service in the field all judicial and executive officers of the Confederate or State governments, the members of both Houses of the Congress and of the Legislatures of the several States and their respective officers; all clerks of the officers of the State and Confederate governments allowed by law; all engaged in carrying the

mails; all ferrymen on post routes; all pilots and persons engaged in the marine service and in actual service on river or railroad routes of transportation; telegraphic operators and ministers of religion in the regular discharge of ministerial duties; all engaged in working iron mines, furnaces and founderies; all journeymen printers actually employed in printing newspapers; all presidents and professors of colleges and academies, and all teachers having as many as twenty scholars; superintendents of the public hospitals, lunatic asylums and the regular nurses and attendants thereon, and the teachers employed in the institutions for the deaf and dumb and blind; in each established apothecary store, one apothecary in good standing, who is a practical druggist; superintendents and operators in wool and cotton factories; all physicians who at that time were and have been for the last five years in the actual practice of their profession; all shoemakers, tanners, blacksmiths, wagonmakers, millers and their engineers, millwrights, skilled and actually employed at their regular trade for the public; and the members of the Society of Friends, Dunkards, Nazarenes and Mennonests.

As the Confederate States were without manufactories for arms and ammunition, and as they were cut off from the surrounding world, it was necessary to detail large numbers of able-bodied men in the manufacture of small arms, cannon, saltpetre and gun powder, and in the working of lead and iron mines, and in the building of iron-clad gun-boats for the defence of the sea ports, and in the manufacture of cloth and leather, clothes, shoes, accoutrements for men and horses, tents and wagons. It became necessary also to exempt a certain number of men, in proportion to the slave population, for the raising of provisions for the army and the proper government of the negroes.

The individual States also claimed a large number of exemptions for certain judicial, State and county officers.

Whilst it might with truth be asserted that the entire population (even the ladies were untiring in their labors for their kindred in the army and in their merciful ministrations to the sick and wounded which crowded every hospital), was engaged, either directly or indirectly, in the support of this gigantic struggle which strained every nerve of the nation, at the same time, when due allowance is made for the exemptions and the desertions, or rather the avoidance of the execution of the conscript act, and for the progressive diminution of the area of the Confederate States, it is fair to estimate that the available force, capable of active service in the field did not, during the entire war, exceed *six hundred thousand men;* and of this number, not more than about *four hundred thousand* were enrolled at any one time as soldiers, and the Confederate States never had, at any one time, actively engaged in the field, more than *two hundred thousand men* capable of bearing arms, exclusive of sick, wounded and disabled. Without doubt a large number of men were paroled by the United States Government at the close of the war, but it must be borne in mind that only a portion, and that the smaller portion, were at the time of the surrender actual soldiers. Every white male between the ages of seventeen and fifty, included under the act of conscription, had been in some way or another connected with the Confederate army, and consequently the articles of surrender took in almost every case or parole in accordance with the stringent orders issued by the United States Government immediately after the surrender of the armies of Generals R. E. Lee and Joseph E. Johnson.

If the preceding calculation be correct, we have the

following figures illustrating the losses of the Confederate armies during the war:

Confederate forces, actively engaged, during the war of 1861–1865, : : : : :	600,000
Grand total of deaths from battle, wounds and diseases in the Confederate army during the war of 1861–1865, : : : : :	200,000
Losses of the Confederate army in prisoners, during the war, which, on account of the policy of non-exchange adopted by the United States, were actual losses, : : : : : : : : : :	200,000
Losses of the Confederate army from discharges, for disability resulting from diseases and wounds; also losses from desertion during the war of 1861–1865, : : : : :	100,000

If this calculation, which is given only as an approximation, be correct, one-third of all the men actually engaged on the Confederate side were either killed outright upon the field or died of disease and wounds; another third of the entire number were captured and held for indefinite periods, prisoners of war; and of the remaining two hundred thousand, at least one half were lost to the service by discharges and desertions.*

At the close of the war, then, the available force of the Confederate States, numbered scarcely one hundred thousand men.

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*NOTE.—Some estimate may be formed of the frightful amount of active field service imposed upon the Confederate army when it is recollected that in a body of 600,000 men, 53,773 were killed outright and 194,026 wounded.

It will be of special interest to medical men to know that one third of this army was confided to the care of surgeons for the treatment of battle wounds, and that in addition to such gigantic service, but few of this 600,000 were not under care of the medical department for the treatment of disease.

Well might it have been said and well may it be said, that to medical men is due the credit of maintaining this host of troops in the field. Such records demonstrate, beyond dispute, the grand triumphs and glory of medicine: proving that if the physician be the preserver of nations in time of peace, he is no less the preserver and defense of armies during war. Such records show that the medical profession, however indispensable in the economy of governments during peace, becomes the basis of such economy in war. These facts are the grand vindicators of the medical profession from the foolish aspersions and baseless stigmas that are so commonly cast upon it. They show its importance and its triumphs, and must elevate it logically to its true position in the estimate not only of the physician, but in that also of the warrior and the statesman.—[ED.]

The resolution and unsurpassed bravery with which the Confederate leaders conducted this contest, is shown by the fact that, during the war, out of 600,000 men in the field, about 500,000 were lost to the service.

On the part of the United States the following forces were opposed the Confederate armies:

According to the report of Provost Marshal Gen. Fry, to the Secretary of War, (Message and Documents, War Department, 1865–'66,) as quoted by Dr. Edward S. Dunster, in the Medical memoirs of the United States Sanitary Commission, pp. 179, 187, the whole number of troops mustered into the service of the United States during the recent war, was 2,789,893. This number was made up from the regular army and the volunteers, white and colored. Of this number, 180,017 were colored troops, and 67,000, by estimate, were regulars. The terms of service varied from three months to three years; reduced to a three years standard, the equivalent is given as 2,154,311.

The army of the United States was thus nearly three times as large as the entire fighting population of the Confederate States.

The official report of the Federal Secretary of War, Stanton, shows that on the first of May, 1864, the aggregate national military force of all arms, officers and men, was 970,710, to wit:

Available force present for duty,	662,345
On detached service in the different military departments,	109348
In field hospitals or unfit for duty,	41,266
In general hospitals or on sick leave at home,	75,978
Absent on furlough or as prisoners of war,	66,290
Absent without leave,	15,483
Grand aggregate,	970,710

The aggregate available force present for duty, May 1, 1864, was distributed in the different commands, as follows:

Department of Washington,	42,124
Army of the Potomac,	120,886
Department of Virginia and North Carolina,	59,139
Department of the South,	18,165
Department of the Gulf,	61,866
Department of Arkansas,	23,666
Department of the Tennessee,	74,174
Department of the Missouri,	15,770
Department of the Northwest,	5,295
Department of Kansas,	4,798
Headquarters, Military Division of the Mississippi,	476
Department of the Cumberland,	119,948
Department of the Ohio,	35,416
Northern Department,	9,540
Department of West Virginia,	30,782
Department of the East,	2,828
Department of the Susquehanna,	2,970
Middle Department,	5,627
Ninth Army Corps,	20,788
Department of New Mexico,	3,454
Department of the Pacific,	5,141
Total,	662,345

Official reports show that on the first of March, 1865, the aggregate military force of all arms, officers and men was nine hundred and sixty-five thousand five hundred and ninety-one, to wit:

Available force present for duty,	602,698
On detached service in the different Mil. Dept's,	132,538
In field hospitals, unfit for duty,	35,628
In general hospital or on sick leave,	143,418
Absent on furlough or as prisoners of war,	31,695
Absent without leave,	19,683
Grand aggregate,	965,591

This force was augmented on the first of May, 1865, by enlistments, to the number of 1,000,516 of all arms, officers and men.

At the time of the final surrender, or close of the war,

the Federal forces equalled in number the entire fighting population of the Confederate States, between the ages of 18 and 45; and opposed to this immense army of one million of men, supplied with the best equipments and arms, and with the most abundant rations of food, and flushed with victory and enriched with the spoils of their defenseless enemies, the Confederate Government could oppose scarcely one hundred thousand war-worn and battle-scarred veterans, almost all of whom had at some time been wounded, and who had followed the fortunes of their desperate cause for four years, with scanty supplies of clothing, with coarse and scant rations, and almost absolutely without pay. And yet the spirit of the Confederate soldier remained proud and unbroken to the last, as was conclusively shown by the battles of Franklin and Nashville, Tennesse; the operations around Richmond and Petersburg, and the last charges of the army of General Lee; the defense of Fort McAllister, on the Ogeechee river, in Georgia, where 250 Confederate soldiers in an open earth work, resisted the assault of more than five thousand Federal troops, and never surrendered but were cut down at their guns; at West Point, in Georgia, where there was a similar disparity between the garrison and the assaulting corps, and when the first and second in command were killed, and the fort was carried by assault and the Confederates cut down within the fort; the obstinate and gallant defense of Mobile, and the battle of Bentonville.

The preceding statistics, whilst illustrating the unbounded resources of the Northern States in men and in warlike material, and showing the utter hopelessness of the struggle on the part of the Confederates, especially during the last twelve months of the war, at the same time demonstrate the profound ability of the leaders and the true heroism of the Confederate soldiers, who, whilst

cut off from the rest of the world, prolonged through four years of unexampled bloodshed, privation and distress the unequal contest and were finally overcome by the "*mere attrition*" of numbers.

The Confedcrate authorities organized a new government, raised and equipped splendid and invincible armies, supplying the troops with arms, clothing, accoutrements, and every thing else, and set afloat a navy which es-established new principles in the art of naval warfare. On the other hand, the Federals had possession of the Government, with its army and navy and vast resources, and were four-fold as numerous.

The size of the United States army progressively increased, whilst that of the Confederate army, relying upon the original population, progressively decreased, and as the war progressed the disparity became fearfully great.

It is important in the next place to compare the losses of the two sections during the recent war. In the following table we have a statement of the casualties of the armies of the United States, from the commencement of the war to August, 1865:

Statement of the Casualties in the Armies of the United States, from the Commencement of the War to August, 1865.

States, Etc.	Enlisted Men.			Officers.			Whole number of deaths from wounds	Whole number of deaths from disease	Total deaths from these causes	Number of men enlisted during the war, in which these casualties occurred—Service from 3 months to 3 years
	Killed in action	Died of wounds	Died of disease	Killed in action	Died of Wounds	Died of disease				
Maine	1620	1069	5479	116	66	65	2871	5544	8415	64708
New Hampshire	1006	531	2481	91	33	49	1661	2530	4191	33025
Vermont	1133	662	2964	68	39	34	1902	2998	4900	32653
Massachusetts	3624	2027	7824	274	104	80	6029	7904	13933	126236
Rhode Island	446	*	1052	30	*	21	476	1073	1549	21301
Connecticut	1094	663	3246	97	48	63	1962	3309	5211	53594
New York	8695	5021	17185	427	302	222	14445	17507	31852	404748
New Jersey	1231	317	2933	106	40	33	1694	2966	4660	67186
Pennsylvania	6096	3675	10973	376	137	117	10284	11090	21374	323846
Delaware	178	113	207	9	10	7	310	214	524	12171
Maryland	359	326	824	16	17	39	718	863	1581	42128
West Virginia	741	391	1792	58	23	20	1213	1812	3025	32003
District of Columbia	43	8	244	3	1	.....	55	244	299	15181
Ohio	6283	4534	13195	280	140	159	11237	14398	25635	307380
Indiana	3140	2244	13172	294	139	220	5817	13392	19209	193285
Illinois	5463	2925	19570	394	126	364	8908	19934	28842	255938
Michigan	2554	1151	8421	154	68	78	3927	8499	12426	87613
Wisconsin	2237	1393	6885	121	67	101	3818	6986	10804	90888
Minnesota	381	191	1650	29	7	26	608	1678	2284	23999
Iowa	1926	1303	8515	146	69	127	3444	8642	12086	75788
Missouri	1461	767	7216	89	48	130	2365	7346	9711	108756
Kentucky	1103	669	5151	82	30	124	1884	5275	7129	74961
Kansas	923	259	2170	36	8	24	1226	2194	3420	20095
California	34	57	298	1	.....	1	92	299	391	7451
Tennessee	1264	920	2182	27	11	11	2222	2193	4415	
Mississippi	.....	.....	69	.....	.....	.....	.....	69	69	
Alabama	32	31	288	2		2	65	290	355	
Florida	27	142	102			.....	169	102	271	
Texas	22	11	278			.....	33	278	311	
North Carolina	34	19	248		1	1	54	249	303	
Louisiana	117	101	768	2	2	1	222	768	961	
Arkansas	210	163	544	8	3	1	384	545	929	
Nevada	8	2	225				10	225	235	
Oregon	58	7	665		2	2	67	667	734	
Colorado	61	44	205	2	1	2	108	207	315	1762
Indian Territory	231	141	416	2			374	416	790	
Washington Territory	14	11	107		4		29	107	136	
Dakota	.....	.....	10				.....	10	10	
Nebraska	5	8	122	1		1	14	123	137	3157
New Mexico	7	15	159		1	1	23	160	183	2395
U. S. Vols., Penitent Reb's	9	5	352				14	352	366	
Hancock's Corps	7	2	406				9	406	415	
Miss. Marine Brigade	136	107	181	3	2	4	248	185	433	
Veteran Reserve Corps	43	70	1269	1		11	114	1279	1393	60508
Total Volunteers	54056	32095	152013	3345	1549	2141				
Regular Army	1890	*	2749	157	*	83	2047	2832	4879	67000
Colored Troops	1790	1037	26211	124	46	90	2997	26301	29358	180017
Grand Total	57736	33132	180973	3626	1595	2314	96088	183287	279376	2789893

Recapitulation of the Losses from Wounds and Disease in the Regular and Volunteer Armies, and Among the Colored Troops, U. S. Army, 1861–'65.

Arm of the Service.	Privates and Non-commissioned Officers.			Commission'd Officers.		
	Killed in Action....	Died of Wounds....	Died of Disease.....	Killed in Action...	Died of Wounds...	Died of Disease.....
Regulars—						
Cavalry.	284	*	470	23	*	18
Artillery	308	*	472	32	*	12
Infantry	1298	*	1807	102	*	53
Total	1890		2749	157		83
Volunteers—						
Cavalry	6816	4018	24702	378	144	331
Artillery	1630	955	8725	79	47	99
Infantry	45610	27122	118586	2888	1358	1711
Total	54056	32095	152013	3345	1549	2141
Colored Troops—						
Cavalry	99	32	883	8	1	1
Artillery	36	31	3508	3	1	16
Infantry	1655	974	21820	118	44	73
Total	1790	1037	26211	124	46	90
Aggregate	57736	33132	180973	3626	1595	2314

*Included in the killed in action.

SUMMARY.

	Deaths from Wounds and by Battle.	Deaths from Disease.	Aggregate Deaths from both causes.
Enlisted men	90,868	180,973	271,841
Officers	5,221	2,814	7,535
Total	96,089	183,287	279,376

From this table it appears that during the war of 1861 to 1865, two hundred and seventy-nine thousand three hundred and seventy-six lives were lost in the army of the United States, from disease and wounds; many died

also after discharge or muster out of service, from diseases or wounds contracted in service; and to this mortality must be added the deaths amongst the Federal prisoners confined at Andersonville and other Southern prisons. If the deaths amongst the prisoners be added, the losses of the United States army, during the recent war, will reach a fraction over three hundred thousand. Half a million lives were lost in both armies, the Northern and Southern, during the recent war. And as we have seen this does not by any means represent the total mortality, for thousands died of wounds and diseases contracted in service.

According to the estimate previously given, the Confederate armies lost 53,773 killed in action, whilst the loss of the United States army was somewhat heavier, being 61,362. In like manner the deaths from disease were greater in the Federal army, being 183,287, and the aggregate deaths, from all causes, including the deaths amongst prisoners, was about 300,000, or about one-third (100,000) greater than the deaths in the Confederate army. This difference is readily accounted for by the differences in numbers on the respective sides, and by the fact that the United States was the invading party. To a greater extent the Confederates fought upon their own soil.

The general proportion of mortality in the United States army to the whole number in service, was about as one out of every ten (9.98); whilst in the Confederate army the mortality reached the extraordinary figure of one third the entire number, or one death in every three. We have here a striking illustration of the grinding and crushing to almost annihilation of the lesser by the greater mass.

It may be observed from the first table, that Missouri furnished 108,756; Kentucky 74,961; Maryland 42,128;

West Virginia 32,003; the number is not given for Tennessee, but judging from the number of casualties, this State must have furnished at least 40,000 effective men to the United States army.

It is thus seen that we have, with justice, rejected Missouri and Kentucky from the list of States composing the Southern Confederacy, when discussing the available fighting population. Of the entire mortality of the United States army, 96,089 deaths were caused by wounds, and 183,287 were from disease; that is, the deaths from disease were twice as numerous as those from wounds.

England furnished in the Crimean war with Russia, 93,-959, men and 3,905 officers. These troops began to arrive at Constantinople in April, 1854; siege operations of unparalleled hardships and difficulties, were commenced immediately upon disembarkation, and were continued with more or less activity to the close of the campaign in June, 1856; the total mortality during this period of a little more than two years, was 28,899, so that one out of about every four and one-half (4.6), sent out lost their lives from sickness, wounds and battle. Of the total mortality, 4,602 deaths were from wounds, and 16,211 from disease, the balance, 86, being due to accidents, suicide and execution; thus in the entire army of England in the Crimea, there occurred about three and one half (3.52) times as many deaths from disease as from wounds.

The French army in the Crimean war numbered, all told, 309,628 men; they were in active service about the same length of time as the English; the total mortality, during the war, according to M. Scrivè, was 69,229; according to M. Chener, 95,615; the proportion of deaths from all causes, therefore, to the entire strength, according to the figures of M. Scrivé, was 1 to 4.46, which approximates very closely the loss of the English in the same war; if those who died in France, after the evacu-

ation of the East, and the loss at sea and in the marine hospital, be eliminated from the figures of M. Chener, there will be left an aggregate of 79,042 deaths, which would raise the mortality in the French army at the seat of war, to one out of every four of the entire strength (1: 3.81). In the French service there were about three and one-half times as many deaths from disease as from wounds, which is very nearly the proportion in which the English forces suffered from these two causes.

In comparing these figures with the losses of the Confederate forces, we cannot refrain from expressing our wonder that the imperfectly armed, half clad, half fed and unpaid battalions of a sparsely settled country, with imperfect supplies of arms and ammunition, without manufactories, cut off from the rest of the world, with less than eight millions of white inhabitants, with innumerable internal enemies and spies, and with a dangerous class of laborers which formed an invaluable recruiting ground to their enemies, in addition to all Europe should have bravely withstood, during four long years of unexampled privation and suffering, three millions of men in arms, and have inflicted four-fold as much damage as the well appointed and immense armies of one of the greatest powers of Europe inflicted upon the combined armies of England and France.

ART. II.—BLOODLETTING AS A THERAPEUTIC AGENT. By C. H. SPILMAN, M.D., Harrodsburg, Ky.

Qui non proficit deficit.

This is a subject of deep interest to the profession and we are glad to see that it is now attracting more attention than it has for some time past. It seems very

much to have fallen into neglect, as a thing of the past, and we are persuaded that a thorough investigation and full understanding of it will lead to valuable practical results. A comprehensive and philosophical exposition of its principles and their application, is a desideratum in our literature.

In the philosophy of the operation of bloodletting, in its different modes, we have taken a lively interest for the last thirty-five years; and as a remedial measure it presents a theme for much thought. Its therapeutical relationships have perhaps been less understood than any other means the physician wields in his conflicts with "the ills that flesh is heir to."

To an entire misconception of the principle on which it acts upon the living economy and consequent failures resulting from its misapplication, is owing the disrepute attached to it, and the present tenderfootedness of the profession in regard to its employment. What we have to say is this: conceding an average advancement in the science and the art of medicine for the last quarter of a century that is highly gratifying, in this particular we are manifestly behind the spirit of the age and less wise than our fathers were.

When we entered the arena in 1832, extreme views prevailed in favor of the lancet; and believing, as we honestly did, that its employment was too indiscriminate, we did not bleed as much as our neighbors, and were regarded as morbidly timid on that subject. We have, therefore, been an eye-witness of the revolution in the medical mind, in all its gradations, and the diversified influences which have contributed to that result.

The history of the anti-depletion hobby is rather a curious one, and not devoid of interest. It is directly traceable to that spot on our planet whence all transcendentalism emanates. It is one of the numerous brood

amongst the thousand and one instrumentalities seized upon and artfully employed to awaken a prejudice in the popular mind against the regular profession. It originated with the ignorant pretender, who, with more prudence and consistency perhaps than the mechanical philosopher, discarded it because he did not comprehend its *modus operandi* as a remedial agent. It is true, there are now men of genius and cultivation who are advocates of this fallacy; but, as a general thing, they are visionaries and wild speculatists, the range of whose mental vision is contracted by an abject subserviency to one-idealism. Hence, they are not found to be medical philosophers, and their opinions are entitled to but little weight. To all such, prudence would suggest the following classic aphorism, as the rule of action:

"*Medici plus interdum quieti, quam movendo, proficerunt.*"

Against this unfortunate prejudice in the popular mind in regard to bloodletting, the profession is, in large measure, powerless, for the obvious reason that the philosophy of its operation has been misconceived and an interpretation supplied on which the practice, as a remedial measure, if not wholly indefensible, is assigned a subordinate place. Thus an agent, preëminently entitled in our art to the distinction of *remedium principale*, is consigned to almost entire neglect, and by many wholly abandoned. Hence, we find a recent writer of distinction —a teacher of medicine in a school flourishing under the auspices of the regular profession, in a learned disquisition on the modus operandi of bloodletting, gravely declaring it to be "an *anceps remedium* at best." Now, this is a logical sequence from the premises. It is predicated of a purely physical view of the operation, of whose progenitor hails from Germany, that huge protuberance of ideality upon the European brain. It perched upon the banner of empiricism, and may be recorded

the prevailing prejudice against bloodletting, and has never practiced it much, or has been an inattentive observer of its phenomena. We have never been able to account for its results by reference to physical laws. It was this physiological fallacy and the numberless failures and miscarriages of which it was the prolific cause which first brought discredit upon the lancet. He who views it as a physical agent, operating upon mechanical principles, should not employ it. He will not be successful with it, and may do harm. The lancet should constitute no part of his professional armament. Assuming it, however, to be a vital, it at once becomes an intelligible agent, and its employment rests upon "*a priori* ground."

The intelligent operator does not bleed by weight or measure, knowing that quantity bears no relation to its therapeutic effect. An altered state of the vital forces is the point to gain. Whether five or fifty ounces will be requisite to its attainment, he does not know when he opens a vein. This, however, is the objective point—the index to its utility, and the exact measure of its extent. He does not look to the fluid, but to the solid—the great inter-medium of the circulation—the principal seat of vital action, whether healthy or morbid, for the results; and in the phenomena we find the physical, if at all concerned, completely subordinated to the vital laws. With such inculcations as a thorough acquaintance with the laws of life, in their relations to vital stimuli afford, the intelligent physician feels a conscious pride in wielding a power in his professional conflicts of which the timid, vacillating temporizer knows but little.

We shall offer a few facts which stand opposed to the physical theory of bloodletting, and which we are unable to explain by reference to physical laws. We shall also

endeavor to show that the practical tendency of the doctrine is not only to bring discredit upon the lancet, as its history, in connection with the prevalent doctrines strikingly exemplifies, but to rob it of its power as a therapeutic agent.

To some incidents attending our early professional life is, perhaps, owing the deep interest we have felt in this remedy, and our careful study of the principles which ought to govern its application. A few years' residence in Yazoo City, Mississippi, during a period marked by several epidemics of a violent and malignant character, demanding promptness and energy of treatment, afforded a fine field for testing the philosophical accuracy of Hippocrates' maxim:

Ad extremos morbos remedia exquisiti optima.

In the summer and autumn of 1834, we were visited by an epidemic of congestive fever, of great violence and fatality. In many cases the life power was completely overwhelmed in the onset, and, with no power to react, death closed the scene in a few hours. In others, where the morbific influence was less intense, a feeble effort at reaction occurred, which prolonged the term a few days. The disease was ushered in by an excruciating pain of the head; intolerance of light and noise, which soon passed into a state of insensibility or wild delirium; coldness of surface, particularly that of the extremities; throbbing of the carotids, while the radial pulse was small, rapid and easily compressible. Gastric irritation was a prominent feature in all the cases, so as greatly to interfere with the internal administration of remedies: alteratives, stimulants, evacuants, antiperiodics, anodynes, counterirritants, rubefacients and revulsives, were but feebly operative in restoring a proper balance. Thus hemmed in and circumscribed in our therapeutic efforts

by the rejection of every thing taken on the stomach, and powerless to give relief to valued friends who had confided to our hand their earthly all, we had the mortification of losing a very uncomfortable proportion of our patients. This was a stunning blow to our early professional aspirations and virgin efforts to establish a reputation for skill and success as a practitioner of the healing art. Although contra-indicated, according to current opinions and liable to incur the charge of malpractice, we resolved on a cautious trial of the lancet, carefully scrutinizing the pulse previously to opening a vein. On abstracting about three ounces of blood, in our first case, we discovered approaching syncope when we closed the orifice. In one hour reaction was established, and we found the pulse sensibly lessened in frequency and increased in volume. We again opened the vein, and keeping our finger on the radial artery, let the blood run until we had twenty ounces in the bowl, before the heart began to fail. By the next day general reaction had set in, the surface and extremities were hot, the pulse full and bounding, and the case had assumed more the character of a bilious inflammatory than congestive fever. With the reaction came a subsidence of the gastric irritation, and indeed, an amelioration of all the symptoms. The brain, however, was greatly oppressed by an undue determination of blood in that direction and we drew forty ounces more blood. We bled this woman, who was thirty years of age and the mother of several children, seven times, and in all, took about two hundred ounces. Her recovery was rapid and complete, much more so than the previous recoveries without the lancet. The encouraging result of this case induced us to use the lancet throughout the entire epidemic, and with the same general success.

We recite the particulars of this case as a type of all the balance (not wishing to occupy time and space with needless details), because it was our test case and awakened in our mind reflections relative to the phenomena of bloodletting, which we trust have been practically useful to us in subsequent life. We may add here, that a remarkable feature which attended this epidemic, was the suddenness and great prostration which characterized the seizure. Like the Arabian simoon, its effects in many instances were speedily overwhelming. In the language of a recent writer: "Nature was suddenly knocked down." In a large majority of the cases, as in the above cited, the tolerance of the loss of blood, was so increased by the loss, as to enable us to take the amount requisite to give entire relief. In some, the amount greatly exceed, in some it did not reach that indicated in our representative case. The disparity in the results, with and without the lancet, was surprising to us; the latter as 1 to 4, the former as 1 to 20. In a very small minority of the cases the loss seemed to lessen the tolerance of loss, unless premised by cordials and stimulants. Some of these were afterward rescued by abstracting large amounts of blood.

Our experience in the use of the lancet from that day to the present has afforded us ample apportunities for testing its magic power as a remedial agent, in both inflammatory and congestive affections; and when you sum up all diseased action depending upon inflammation, acute or chronic, and congestion, local or general, the remaining margin is not very wide. The conviction has forced itself upon our mind that there now exist two fatal errors in regard to bloodletting as a remedial agent. The first relates to the philosophy of its operation, and the second follows as a consecutive result and regards the class of cases to which it is applicable.

There is scarcely a fact connected with the phenomena of bloodletting that does not strikingly illustrate and establish its vital nature. Not as an evacuant but as an alterative, are its principles and effects satisfactorily explicable. The resulting syncope, sometimes from the loss of an ounce or two, sometimes not until one hundred ounces are abstracted, most clearly shows that its effects are not referable to the mechanical diminution of the general mass of circulation, but from a peculiar state of the vital forces, with which the extreme blood vessels—the instruments of vital action—are most highly endowed. In the case above cited, the loss of three ounces of blood, in some way, effected a change which greatly exalted the tolerance of the loss. On what was this change made? Manifestly on the instruments of disease, through the properties of life, as evinced by the greater freedom of circulation in the extreme capillary vessels after each successive bleeding. The vital properties and the functions over which they preside are profoundly affected by the operation and so modified as to develop the recuperative process.

The vital nature of this operation and the laws which govern it, receive farther confirmation by reference to the phenomena of spontaneous hæmorrhage. It is a well known fact that in many forms of disease, particularly those of the congestive type, nature often sets up her own means of relief, in the spontaneous discharge of enormous quantities of blood, sometimes too, under circumstances of great prostration from protracted disease which could not be safely imitated by art. Did the philosophy of depletion rest on physical grounds as alleged, there ought to be a parity, or at least an approximation to it in the tolerance under the different modes of depletion. If it be objected that the former mode is better borne because it is more gradual, on the ground that less

blood will produce syncope from a large than a small orifice, we oppose to this view the results of leeching, another mode of artificial depletion, which, although very gradual, often produces a more profound impression upon the circulatory system than venesection. Dr. Armstrong repeatedly bled a patient for a pulsating pain in the head, without relief. He then ordered twelve leeches to be applied to the temple when the pulse fell twenty beats which completely relieved the pain. We have often witnessed similar results. A few leeches will sometimes produce prolonged syncope, which would not result from ten times the amount if taken with the lancet. Physics will not account for these phenomena. The impression is made on the vital forces of the extreme vessels to which the leeches are applied and doubtless propagated through reflex action of the nervous power to the entire circulating system.

A well known fact which stands opposed to the physical theory and to current opinions as to the effects of bloodletting is the increased strength and vital energy which often follow excessive losses, whether spontaneous or by artificial means.

The argument against the lancet, founded upon its supposed debilitating effects, is an abstraction and not an induction from a careful observation of facts. On the contrary, every physician who has had an extensive experience in its employment and witnessed its magical effect in the speedy subversion of morbid action, appreciates it as an efficient means of economizing strength. One suddenly attacked, either by an inflammatory or congestive form of disease, although greatly prostrate, and unable then to put forth his strength, is not weak. Take off the weight, by which he is overborne for the time, and he is still strong.

"The giant," says an able writer, "that lies prostrate on

the earth, mastered by superior power, has still a giant's strength, though he do not at that moment put it forth. Give him but the chance to throw off the load that keeps him down and he will soon show you that he is not weak."

This is an apt illustration of depressed vital action often mistaken for debility under the weight of disease. The intelligent physician will not be misled by the illusion. He will at once recognise this apparent debility as the sympathetic influence of a dangerous lesion in some vital part. Seeing the peril and comprehending the situation, we find little room for temporizing. The most efficient means for equalizing the circulation—taking off the oppression and restoring lost energy are called into requisition, and a view of the laws which govern the vital economy, in its therapeutical relationship, will at once suggest bloodletting as the most appropriate because the most prompt and decisive means of accomplishing the object.

Bloodletting, if a debilitant, is only relatively so. That it is highly vital, and, in its remedial action, not subject to physical laws, we think we have offered abundant proof; and whether depressing or elevating, depends upon the existing state of the vital forces, to determine which, as well as the extent requisite in a given case, the operator must be thoroughly acquainted with the laws of life in their relation to vital *stimuli*, whether natural, morbific or remedial.

We are not unaware of the fact that the attempt to expose errors, intrenched behind an array of such formidable means, is an ungracious task. The subjects, however, appertaining to medical science, are too important to the highest interests of mankind to permit any complimentary sacrifice to the ingenuity of speculations. It is from no captious spirit that we have presented a view of this subject, in conflict with the popular doctrines of

the day. It would have been more agreeable to our feelings could we have indorsed sentiments consecrated by so many justly distinguished names, and being an earnest seeker after truth we shall gracefully and gratefully surrender to a philosophical exposition of the phenomena of bloodletting on physical grounds. It is not with us a hobby. In much of our practice we never unsheathed the lancet. We would, however, have the profession rescued from an injurious prejudice arising from a misconception of the philosophy of its operation as a remedial agent. We would have the physician, like a philosopher, exercise an intelligent discrimination and carefully distinguish between depressed vital action from the weight of disease and direct debility from exhaustion of the life power. We would have him learn something from the school of nature and improve the moral which spontaneous hæmorrhage so frequently affords where the *vis medicatrix naturæ*, disgusted with the stupidity and tardiness of her attendant, sets up her own means of cure and exposes to view the glaring defects of his therapeutics.

If the views here presented be sound, and we have honestly laid them to line and plummet of carefully noted and patiently classified facts, then bloodletting, as a curative measure, rests upon higher ground than mere empiricism. Its earliest visible effects are upon the instruments of vital action through the organic forces, and its agency as a powerful alterative is a well-ascertained fact. Through this alterative influence alone can its powerfully equalizing effect be satisfactorily explained, which affords the greatest security against those dangerous inflammatory and congestive local affections which supervene in the course of idiopathic fever, on which spontaneous hæmorrhage often throws a flood of light.

It is very easy to conceive, from our stand-point, how the loss of blood as a means to an end may do harm, if

the laws which govern its application be misapprehended. If performed according to the physical idea, the end aimed at will not meet the exigencies of the case, and failure, if not absolute injury, will result. The consequence is an agent powerful for good is rendered prolific of evil, by misapplication, and it is a question of grave import to what extent we are responsible for the prevailing prejudice against the lancet, in consequence of which it has fallen into almost entire neglect—our patients robbed of one of the most efficient means of relief and ourselves of an important element of success.

Art. III.—Iodine as a Specific Remedy in Intermittent Fever. By Felix de Willebrand, Professor of Clinical Medicine in the University of Helsingfors (Finland). Translated from the Archives Générales De Medicine. By Dr. S. H. Hornor, Louisville, Ky.

A serious view of the relation borne by cinchona and its preparations to therapeutics in general, and especially to those of the various malarial disorders in particular, cannot fail to make us apprehend the exhaustion of that great boon to suffering humanity at too early a day, and recognize the paramount importance of casting about for a substitute. It is, therefore, with a sense of gratefulness that we should hail every effort like that of the distinguished professor of Helsingfors. It is to be hoped, however, that in this instance the remedy, unlike bromide of potassium and others vaunted as specifics, will better stand the test of practical experience.

After a brief allusion to his publishing, in the spring of 1865, a series of experiments relative to the treatment of typhoid fever by iodine internally, M. de Willebrand tells us he has since been continuously pursuing his studies in that direction. From hundreds of observations upon this subject which he had occasion to make

during an epidemic of typhoid fever prevailing throughout Finland, to an extent and with an intensity unknown for a century, aggravated as it was by a desolating famine and misery, he had confirmed, his conviction that iodine given internally is equally powerless with every other remedy known at present to cut short a completely developed typhus, but that if employed methodically from the beginning of the disease it does exercise over the typhoid poison and the resultant fever an influence decidedly calculated to diminish the mortality. Meanwhile having his attention directed to another point, namely, the concurrence of certain forms of intermittent fever, he very naturally subjected them to the same kind of treatment, and was astonished by the effects produced.

Owing to the malarial impregnation of the atmosphere, intermittents are endemic at Helsingfors and on a great part of the southern coast of Finland. Frequently they are preceded by prodromata and present at their inception a continued character, the temperature of the skin rising as high as 104° Fah. So that during the prevalence of typhus and typhoid fevers it was often impossible to discriminate, during the earlier days, between a fever caused by marsh infection and the commencement of a typhus. Under these circumstances he says: "As it had appeared to me a matter of the greatest importance in the treatment of typhus that the iodine should be given so soon as the prodromata were manifested, I frequently had recourse to the same remedy as well for the typhus as for the *malaise*, which in a few days would develop a regular intermittent. Cases of this kind attracted my attention at an early day. It was soon demonstrated that malarial fevers could be combated with other specifics besides cinchona, and that iodine was one of these. The iodine was administered in the form of solution in the doses indicated in my previous work upon

Iodine in Typhus, viz: 1 gramme of iodine and 2 grammes of iodide of potassium dissolved in 10 grammes of distilled water; to take 5 drops in a small glass of water every 2 hours during the day. The iodide of iron was used for the paludal cachexia and for the anæmia following intermittents as a natural consequence. This latter was given in doses of 10 centigrammes four times a day."

Then follows a detailed record of nineteen typical cases. Space will not allow us to give more than the headings:

Case 1.—Intermittent fever, resembling, from its first appearance, typhoid fever; yielding with the second paroxysm. No relapse.

Case 2.—Intermittent fever; at first taken for typhus; yielding with second paroxysm. Relapse on the fifth day. Cure complete.

Case 3.—Violent intermittent fever. Cure.

Case 4.—Rachitic child; violent intermittent. Cure after second paroxysm.

Case 5.—Four attacks of intermittent; after taking iodine one slight attack and a cure.

Case 6.—An intermittent in a person of delicate constitution; twice the fever returned, each time yielding to the use of the iodine. Definite cure.

Case 7.—The patient subject to recurring attacks of intermittent for a number of years; broken by cinchona. Treatment by iodine and cure without relapse.

Case 8.—Repeated attacks of intermittent; a violent one broken by iodine. Three slight relapses, yielding equally to the use of that remedy. Permanent cure.

Case 9.—Simple intermittent; promptly cured.

Case 10.—Non-complicated intermittent; cured in twenty-four hours.

Case 11.—Patient suffering from intermittent several years and taking from time to time cinchona; is seized

with a violent attack of the disease; is treated with iodine and gets well.

Case 12.—Patient living in a county seat much exposed to marsh miasma; cured after a second attack.

Case 13.—Chronic pulmonary affection; intermittent. The disease at first taken for phthisis, but later recognized as intermittent fever; cured after second attack.

Case 14.—Simple intermittent; broken at the second attack.

Case 15.—Violent intermittent in a child 2 years old, ending at second attack.

Case 16.—Child 3 years old, grave intermittent; cured at third attack.

Case 17.—Child 7 years; simple intermittent, cured at third attack.

Case 18.—Simple intermittent; treated in three attacks with iodine, yielding to the use of cinchona.

Case 19.—Malarial cachexia, following repeated attacks of intermittent; cured.

All the above cases were treated with iodine in the manner prescribed, and were collected in the order in which they are given, during a period extending from spring to autumn of 1868. In all that time the author treated no cases of paludal fever with cinchona or its preparations. Most of the cases treated with iodine, it will be observed, were cut short at the second attack; only two resisted until the fourth. The eighteenth was broken by cinchona, prescribed to satisfy the wish of the patient. The fever had already been reduced by the iodine, so that the fourth paroxysm was only attended by a slight chill and almost imperceptible fever.

During the present year several cases of intermittent fever, occurring both in nosocomial and private practice, have been successfully treated with iodine. But the author refrains from a notice of them because it might

be objected that sufficient time had not since elapsed to allow of judgment as to the permanent effect of the agent. Besides, a repetition of observations perfectly similar would be tedious to the reader.

From his experience, then, M. de Willebrand concludes that in iodine we have a remedy equally specific with cinchona against paludal poisoning; perhaps it excels the latter in that it not only cures the fever but extinguishes the disposition to relapse, which cannot be said of cinchona. In no instance, either in childhood or adult age, did the iodine have an injurious effect. On the contrary, the tonic property, under certain circumstances ascribed to the article by Trousseau and Pidoux, was demonstrated. It was also proved that the co-existence of pulmonary disease does not contraindicate its use. The remedy was tolerated in every instance without exception. In some it was necessary to increase the dose to 10 or 12 drops. The bilious symptoms that accompanied the severer forms of the affection, such as nausea and vomiting, were overcome as if by a specific. This tolerance did not obtain, however, in cases of typhus and typhoid fever. Frequently the patient had such a disgust for it that its use had to be abandoned.

Finally, the Professor refers to a certain anomalous form of intermittent fever met with during the last two years, as a sequela of typhoid fever, or as a particular species of typhoid infection, and which, while resembling malarial intermittent, still possesses distinctive characteristics, especially as regards its resistance to quinine treatment after the most heroic manner. Here the iodine failed, as did quinine also, to cut short the disease.

ART. IV.—ANEURISM OF THE AORTA, WITH CASES. By EUGENE F. CORDELL, M.D., Attending Physician to Baltimore General Dispensary, Member of Baltimore Pathological Society, late Clinical Recorder at University Hospital.

The subject of aneurism is possessed of so much interest that I present a history of three cases, affecting respectively the arch, the thoracic and the abdominal aorta. They were observed at the University Hospital, and were under the care of the Professors of the University. In anticipation I will advert to one feature in the history of *spontaneous* aneurisms which, though not noted by any author so far as I remember, from its invariability of occurrence seems to me to be invested with diagnostic significance. It is the preference of the disease for persons of a fair and florid complexion and light hair. Of five such cases that have fallen under my observation, all have been thus characterized.

I. *Aneurism of the Arch of the Aorta.*—John Schele, a gardener and Irishman, age 61, came first under observation at the University Dispensary on the 7th of April, 1869. We gathered from him and from our examination the following history: About Christmas, 1868, a tumor began to arise on the right breast, which has gradually increased to the size of a billiard ball. It extends from the margins of the clavicle and sternum downward to within two inches of the right nipple. It is distinctly elevated above the surface, is circular in outline and of a purplish hue, which ends abruptly at its circumference. It pulsates with the heart, and the hand perceives the expansion at all points of its surface. No thrill or bruit is discoverable. We compress it with ease, but it gives him pain. No necrosis of the ribs can be detected, but it has probably begun. The heart beats in its normal position. The first sound is prolonged; a regurgitant murmur replaces the second sound. He does not complain of pain,

but of oppression of the chest. There has been no vomiting, dyspnœa, hæmoptysis nor impairment of voice. The pulses are equal, the pupils unaffected. A slight cough is noticed. There is no venous congestion of the head or neck. He is married, but has no children. He does not attribute the disease to injury or any other obvious or sudden cause. He freely confesses to having been always intemperate. He is trembling and alarmed and in a profuse sweat. So far as he knows the disease is not hereditary. He has been unable to do any work since last January.

Prof. Johnston made a cast of the tumor and thorax. The thorax continued to enlarge until it was the size of a female breast and extended to the margin of the axilla. It also became very hard and lost its pulsating character. The bowels were at no time affected, but there was some irritability of the bladder. The feet and legs were never swollen, but the right hand and arm were slightly. The right pulse was not obliterated, but on the contrary became so prominent as to be seen distinctly with the eye. The intellect, speech and respiration were never in the least affected. There was slight nausea at times, but no vomiting. During the progress of the disease severe neuralgic pains were experienced in the toes, instep, legs, thighs and back. As the disease advanced he was unable to sit up, but lay half-prone with the tumor pendent, this being his most comfortable position. He ate little or nothing for a fortnight before his death. About midnight, September 4th, his face became suddenly pale, his eyes fixed, and he ceased to breathe. Arterial sedatives and quietude were the remedies employed in the treatment. There was no post mortem in this case, but there is no doubt that a rupture of the sac caused the sudden death.

II. *Aneurism of the Thoracic Aorta.*—Robert McKenna,

age 30, an Irish laborer, entered the hospital February 11th, 1868, to obtain relief from an obstinate and distressing pain in the back and dyspepsia of a month's standing. From the date of admission to March 11th, at which time he first came under the writer's observation, the following remedies were given and convey to the mind a sufficiently accurate impression of his symptoms during this period: Castor oil frequently; sol. acetate ammonia; numerous belladonna plasters; Rochelle salts, oil turpentine, turpentine stupes, morphia, acet. potash, dry cups, blister, tinct. Guiac, Podophyllin, Colchicum, chloroform liniment, co. cath. pills, purgative enemas, bicarbonate soda, and infus. columbo. On February 19th he was directed to have one-fourth gr. morphia every three hours, and turpentine stupes to left groin. On the 25th, dry cups to each groin and anodyne poultice to tumor in abdomen. On the 29th a blister over seat of pain, near ensiform cartilage. On the 3d of March dry cups to chest. On the 11th of March he was complaining of a rolling, throbbing, heaving pain in the region ot the lower dorsal vertebræ and extending around the body to the epigastrium, but almost entirely limited to the left side. No evacuation from the bowels for a week and then only after the use of purgatives. Dysuria and pain in micturition, anorexia, sleeplessness. A slight swelling is noted on the left side of the face and a tumor of firm consistence felt through the epigastric walls. No bruit pulsation or thrill could be detected in the tumor on examination; but the patient stated that it had pulsated some time previously. From this period on the symptoms increased in severity. He could scarcely get any sleep, the pain continuing night and day. The treatment continued to be blisters to back and epigastrium, purgatives, enemas, stomachics, anodynes, and as diet stale bread, butter and milk. On the 18th at dusk

he felt better than for three weeks and was cheerful and in good humor. At midnight having gone to the water-closet he was heard to fall and breathe stertorously. Assistance quickly came and restoratives were applied, but to no purpose. The post mortem was made next day. A large quantity of blood was found in the thoracic cavity displacing the heart to the right side. A part of the left lung was carnified from pressure. A sacculated aneurism of the aorta was found just above its passage through the diaphragm, about as large as an orange. It communicated with the vessel by a rounded orifice as large as a copper cent, with smooth edges. The bodies of the three corresponding vertebræ were much eroded, but not sufficiently to expose the cord. There were no clots in the sac.

III. *Aneurism of the Abdominal Aorta.*—B. A., an American sailor, aged 38, came to the hospital in July, 1866, with chills and fever. He had contracted syphilis twelve years before and had suffered from the disease at times since, but at the date of admission seemed clear of it. About the 1st of August a tumor became developed in the epigastric region. It was situated below the costal cartilages, to the left of the ensiform appendix. On the 1st of October, when it came under my observation—and the appearance now described continued with no appreciable variation until the day of death—it was of the size of a goose egg, or thereabouts, expanding uniformly under the hand and conveying to the ear a well-marked and smooth bruit coincident with the heart-beat and pulse. It was distinctly elevated above the surface of the abdomen and presented no discoloration. It yielded to pressure as though the contents were finding an outlet. This case was characterized by habitual constipation, distressing pains in the lumbar region, abdomen, lower extremities, and groins and hips (particularly of the left

side), great dysuria at times, anæmia, anorexia, debility, distressed countenance, and frequent pulse. Lying upon the stomach gave relief. The patient walked about the ward at his option and had ordinary diet. On the 18th of January, toward bed-time, after smoking and moving about, he lay down upon his bed. In a moment he sprang up, then immediately fell back and expired with a gasp. The treatment pursued was iodide of potash, 10 grains thrice daily—partly because of its reputed coagulating effect upon the blood, partly for its alterative influence. Post mortem: The tumor was very large, completely overlapping the vertebral column and involving the whole extent of the abdominal aorta. The upper extremity had forced its way through the aortic opening of the diaphragm, enlarging that opening and bursting into the thorax, the left side of which was filled with blood. The lower extremity had eaten into the substance of the Psoas muscle and there buried itself. In the interior of the sac were some deposits of lymph of a pale color and arranged in successive layers one upon another. The lining membrane of the sac was of a vermillion color. The bodies of the vertebræ were deeply eroded, but at no point so as to expose the cord, pressure upon which would have led of course to paraplegia and great intensification of the lumbar pain. The heart was flabby and contained much fatty deposit, and oil-globules were observed in great abundance under the microscope. The feebleness of circulation due to their degenerative change, manifested during life by a frequent and atonic pulse, explained the delay in the rupture of the sac. The lungs were emphysematous and affected with fatty degeneration. Wide fringes of fat hung from their margins. The kidneys exhibited marks of advanced Bright's disease. The liver seemed healthy.

On retrospecting these cases it will be seen that tumors

existed during life in all, but in case II. so obscurely as not apparently to have attracted particular notice from the medical attendant. Their seat was: for the arch, the upper part of the right breast; the epigastrium for the other two divisions of the aorta. In case II., diaphragmatic rheumatism, dyspepsia and gastralgia were the alternately supposed conditions, and as will be evident to the careful reader, aneurism was not suspected until the post mortem revealed it, which teaches us this important lesson, viz: to view with suspicion all obscure gastric and intestinal derangements and not to rest without a most searching investigation into their history, symptoms and signs.

It will be observed that where the thoracic and abdominal aorta were affected, there were constipation and partial paralysis of the bladder, due doubtless to the pressure exerted by the tumor upon those parts or upon the nerves supplying them. These symptoms were entirely absent in the affection of the arch, but even here a slight irritability of the bladder existed.

Case I. disproves the assertion of Gross (Surgery, vol. I., p. 678), that "Aneurism is unattended with discoloration of the integuments."

Duration—In Cases I. and III., dating from the first appearance of the tumor, eight and six months respectively. In Case II., dating from the commencement of dorsal pain and dyspepsia, a little over two months.

ECLECTIC DEPARTMENT.

"Carpere et Colligere."

ART. I.—A CASE OF MEASLES, COMPLICATED BY SCARLATINA (IN STADIO FLORITIONIS) AND ACUTE BRIGHTS DISEASE. Reported by Dr. Steiner, Archiv für Dermatologie and Syphilis; January, 1869. Translated by JOHN A. OCTERLONY, M.D., Professor of Clinical Medicine and Dermatology in the Louisville Medical College.

A boy five years of age who had been for some time a patient in the hospital on account of tubercular disease of the lymphatic glands (of the neck?) was lodged in the third story, which is usually reserved for exanthematous diseases. One day he was seized with fever, catarrh of the schneiderian membrane, slight conjunctivitis and a dry ringing cough; he lost appetite and slept badly; the temperature of the skin and frequency of the pulse rose very rapidly and the catarrhal symptoms increased in severity during the four following days. At this time the countenance was somewhat puffy and a number of red, slightly raised spots showed themselves on the forehead, lips and cheeks, but between these spots the skin appeared normal.

The breathing was harsh but vesicular, numerous large and small mucous rales were heard all over both lungs. Within the mouth and on the fauces were scattered a few roundish and very red spots. The patient continued to cough a good deal, the cough, however, was no longer dry but loose and mucous.

In the night of the fifth day, and during the sixth day of his illness, the spots on the skin increased in number and spread over the trunk. About this time the patient vomited several times and without apparent cause. The pulse and temperature rose also, and the nurse reported that he swallowed with difficulty. On examination I found the throat much swollen and of dark red color; the tonsils were covered with a yellowish gray exudation and deglutition was painful and difficult. His skin was burning hot; the spots already described were very numerous on the face and trunk But, besides these there was also a diffuse, uniform and finely punctated redness,

like that characteristic of scarlatina; most marked on the neck, back, extensor surfaces of the upper and lower extremities, especially on the inner surface of the thigh and around the joints.

On the seventh day of his illness both rashes were in fullest bloom—the spots, chiefly on the face, breast, and here and there on the extremities; the punctiform rash, chiefly on the other parts already named.

The patient coughed much and complained of great pain in his throat. The exudation on the tonsils had spread considerably and the submaxillary glands had attained the size of pigeon eggs.

On the eighth day the blotches began to pale while the scarlet rash remained the same. The urine was somewhat cloudy with albumen, and when microscopically examined was found to contain numerous epithelial casts. The cough still continued and numerous rales were heard over both lungs, breathing harsh but vesicular.

On the ninth day branny desquamation commenced on the face, the blotches were of a dirty yellowish red color. The scarlet rash was pale but still plainly perceptible. Slough in the throat separating. There was some albumen in the urine and the submaxillary glands large as before.

On the tenth day there was branny desquamation on the face, trunk and buttocks. The blotches had entirely disappeared; urine was scanty and more albuminous; cough and throat trouble improving.

Eleventh and twelfth days. Branny desquamation going on and the fever still continued. Urine even more scanty, was of a dark brownish red and contained not only albumen but blood and fibrinous casts. The breathing continued harsh but vesicular and there were only a few rales. The appetite was entirely gone, his sleep was broken and disturbed and he complained of head ache.

On the thirteenth day desquamation was going on more actively, large pieces of epidermis becoming detached from upper part of the thigh and hollow of the hands. During the following days he continued to separate large pieces of skin with the fingers. The urine was still passed in very small quantity and contained albumen, blood and casts. The face, especially the eyelids and the feet were slightly œdematous.

The renal affection with a moderate degree of anasarca lasted another fortnight. During this time desquama-

tion gradually ceased and both subjective and objective symptoms improved, so that after six weeks illness the little patient was considered to have fully recovered.

ART. II.—IS BLOODLETTING, AS A THERAPEUTIC AGENT, TOO MUCH NEGLECTED. A paper read before the Cooper County Medical Society, by A. H. CONKWRIGHT, M.D.

MR. PRESIDENT: I apprehend it to be the duty of every member of this Society to contribute something in the way of discussion upon whatever subject it may present for that purpose, and such conviction *alone* impels me to offer some remarks upon the question as to whether the practice of bloodletting has been too much neglected of late years.

For, in the first place, I have no experience in this line of practice, never having in my life employed venesection in more than one or two instances, and then on special request. In the *second* place, I do not regard the question as at all practical, the almost unanimous voice of the profession having so long ago condemned it to "the tomb of the Capulets," that nothing short of a miracle could now resuscitate it.

Remarks then on the affirmative side of the question ought, in my estimation, to be considered rather in the light of a eulogy upon the character of a deceased friend, than a vindication of the merits of a remedial measure sought to be reëstablished.

As for my part, I do not hesitate to assume the *negative* side of the proposition—*my* business, therefore, is to *bury* Cæsar, not to *praise* him.

To speak without a metaphor, I do not believe that bloodletting, as a remedial agent, *has* fallen into too much discredit among modern practitioners. But since, as I said before, I have had no experience in its use, what I have to offer in support of my belief makes no claim to originality, but is only a partial collection of the testimony of such eminent authorities in medicine as have fallen under my observation.

In connection with this question it may be convenient to consider, 1st, what is the purpose and effect to be attained through the agency of this remedy; 2d, the real

value of it in some of the particular disease in which it has been much employed; 3d, the dangers and contra-indications which forbid its use.

And first—Its effects are preëminently spoliative—lessening the quantity, and deteriorating the quality of the blood more rapidly and certainly than any other agent that could be resorted to—the *first* effect is, of course, self evident; a knowledge of the second is obtained by analyzing the blood before and after venesection.

The following is such an analysis by Andral: Before bleeding, the blood was found to contain, of water, 780 parts in 1000 (omitting fractions); of globules and fibrin, 139 parts; of albumen, salts, etc., 80 parts.

After a third bloodletting: water, 853 parts; globules and fibrin, 76 parts; albumen, salts, etc., 70 parts; showing a very large increase of water, and a corresponding diminution in the proportion of red globules, albumen, etc.

On account of this destructive influence which it exerts upon the constitution of the blood, it has been wont to be regarded, from ancient times up to within a very recent period, as the remedy "par excellence" for inflammation. Sydenham, Eberle, Thomas, Dewees, Watson, and other shining lights in Medicine, teem with this doctrine, and even Geo. B. Wood, as late as 1856, holds the language, that "as an antiphlogistic measure, the loss of blood holds a position far above any other agent," and admits that, "in this capacity, it exercises its most beneficial influence." This, like many other pernicious doctrines of profession, was handed down from generation to generation, without any serious and well directed effort having been made to test the truth of it, and to our own times has the honor been reserved to explode this lamentable error.

Within the present century a great change has taken place with respect to bloodletting in the treatment of acute inflammations. Experience and pathological reasoning have convinced the best minds in the profession, that it does not exert a direct controlling effect upon the progress of inflammatory diseases, indeed it is generally admitted that the repeated use of the lancet not only fails to cut short an inflammation, as was formerly thought it could, but that the practice is not only useless but injurious.

The evils of bloodletting are made manifest by a larger

rate of mortality in those diseases which tend to destroy life by asthenia, and no one now doubts that the death-rate has been diminished by a much more sparing use of the lancet within late years. So also the pernicious effects of bloodletting are manifest in cases which end in recovery, as well as those which end fatally; these results consisting in a protracted convalescence and subsequent feebleness, presenting a striking contrast with cases which are treated without its use.

It is now generally conceded that it is not an antiphlogistic measure, properly so-called; that although it may exert a powerful immediate effect, as a palliative measure, yet, whatever curative effect it may possess, is exerted indirectly. Its therapeutic action consists solely in lessening the frequency and force of the heart's action, in other words, in diminishing the intensity of symptomatic fever. The same beneficial effects may be generally obtained by other and much more innocuous means, for instance, the mass of blood may be temporarily lessened by saline purgatives and diaphoretic remedies. The force and frequency of the heart's action may be effected by nauseant sedatives, such as tartar-emetic, ipecacuanha, etc., or direct sedatives, such as digitalis, aconite, veratrum viride, etc. I maintain, therefore, since we have these simple medicines in our armament, we are not justified in resorting to a measure which involves in it such great impoverishment of blood; in view too of the well known fact, that most of our prevalent phlegmasia tend to destroy life by asthenia, and by the fact that red corpuscles are not readily reproduced during the progress of an acute disease.

It was my purpose to take up, seriatim, a number of those diseases in which bloodletting was formerly held to be indispensable and show how, in the treatment of each individual disease, the success now-a-days is much more gratifying than formerly, when this heroic remedy was never omitted; but this plan, I perceive, would prolong my paper to an extent much exceeding that which I had intended, or what would be proper. Suffice it then the bare assertion, that a better scientific knowledge, great advancement in animal chemistry and philosophy, together with a close observation of the ill effects of bloodletting as resorted to in the part of the present century, have given the reformed practice an impetus and a precedence which it will probably never lose.

I may now, before closing, call your attention, briefly, to some of the dangers and contraindications which should guard us in the employment of this therapeutic agent. Bloodletting is not admissible when the development of inflammation is not accompanied by high symptomatic fever, nor when the patient was not in good health when attacked, nor when the constitution is feeble, nor when the disease involves danger of death by asthenia. The very young and the old do not well bear the loss of blood, nor, as a general remark, the inhabitants of large cities, nor persons predisposed to phthisis, scrotula, or scurvy. Very fat persons will seldom bear any great loss of blood, fatal syncope having followed the abstraction of even small quantities in those cases. In persons affected with chronic disease of the heart, valves, or large vessels, the abstraction of large quantities of blood has been followed by fatal consequences. We are forbidden to bleed a woman whilst menstruating, as also a woman suffering from hysteria. Bleed very cautiously habitual drinkers or persons resident in a tropical climate. Repeated bloodletting tends to produce disease of the heart and great nervous derangement. Bloodletting, in apparently favorable cases, sometimes produces fatal syncope. It generally produces anæmia in women and persons of debilitated constitutions, whose vital powers are insufficient to replace the red globules of the blood. It sometimes produces excessive hæmorrhage, occasionally dropsy. It naturally engenders an increased susceptibility of the surface of the body to the influence of cold, and therefore a relapse, or a liability to the excitement of fresh inflammatory disease. Dr. Hope states that he has distinctly observed polypus of the heart as a sequence, when bloodletting has been extensively employed in organic disease of this organ.

I do not wish to be understood as maintaing the proposition that bloodletting is an unmixed unmitigated evil, that it can never under any circumstances, be made to subserve good and useful purposes. On the contrary, I believe, in accordance with the teachings of our most modern and judicious authors, that bloodletting, in well selected cases may be made a remedy of great power for good: that in a robust and plethoric habit we may safely, by its aid, reduce the force and frequency of tde heart's action and the momentum of the circulation more speedily than by any other one remedy; that by it we may

often afford immediate relief to very urgent symptoms, as in great obstructions of the respiratory and circulatory organs. In fact the measure is probably more applicable to the treatment of inflammations affecting the pulmonary organs than the treatment of any other inflammatory affections, in consequence of the relations of the former to the circulation; the free passage of blood through the pulmonary circuit being promoted and the functional labor which the lungs have to perform being diminished by the abstraction of blood; and were it not for its ulterior effects, it would be invaluable as a palliative measure in pleurisy and other inflammatory affections within the chest. My conclusion then is, that while we cannot deny therapeutic value to bloodletting as a remedy, yet the class of affections in which it is applicable is so small, while the number of restrictions and contra-indications which guard us in its employment is so large that we must confine its use within very narrow limits. Indeed, I think I may say that the range of its usefulness is so small; that the contra-indications to its use are so numerous; that it requires so delicate a discrimination to elect cases in which it may be advantageously resorted to; that so few physicians, comparatively speaking, possess this tact; that its improper employment may be attended with results so disastrous; that we possess so many substitutes for it much less hurtful, and very little if any less efficient, that it becomes a grave question whether it might not be better, on the whole, to dismiss it from our pharmacopœia altogether. At any rate, I do not hesitate to reaffirm my belief in the proposition with which I set out, viz: That bloodletting, though unfrequently resorted to of late years, is *not* too much neglected by modern practitioners.

ART. III.—OBSTINATE CASE OF ACUTE AND CHRONIC GONORRHŒA TREATED BY INJECTIONS OF GLYCERINE OF TANNIN.*

Perhaps no surgical disease is so frequently observed in hospital (out-patient) practice as gonorrhœa, and the

* ℞. Glycerine ℥iv, Tannin ℥j. Rub together and heat. [ED.

treatment which is advocated by surgical authorities cannot, in many instances, be surpassed; occasionally, however, troublesome cases will arise, both in the acute and chronic form of the disorder.

In these cases, previous to the employment of any kind of local or constitutional treatment, whether alone or in combination, Mr. J. D. Hill, who has the care of the Royal Free Hospital, thinks several circumstances have to be considered.

First, it is necessary to determine the occupation, habits and constitutional peculiarities of the patient; or, in other words, what assistance, both from within and without, can be brought to bear upon a purely local affection. Secondly, to overcome local difficulties, which are both physiological and mechanical in character; and these may be briefly said to consist in the mobility of the affected part, its dependent position, and the occasional contact of an irritating fluid—the urine.

The treatment which Mr. Hill tells us he has extensively employed in hospital and private practice, was, he believes, first introduced by Dr. Ringer, of University College, who has kindly favored him with the following remarks: "For some time past I have been making observations with an injection of glycerine of tannin in chronic gonorrhœa and gleets, which I believe may be removed more quickly with the injection than perhaps any other. In the acute stage of the disease a little care is necessary, or great pain is caused. This may be prevented by diluting the glycerine of tannin with equal parts of mucilage. Another point to attend to is that the injection should not be injected too far, or it causes a great and frequent desire to make water."

Mr. Hill is therefore enabled to support the experience of Dr. Ringer, not only by recent cases, but also by observations on the treatment of gonorrhœa by tannin and mucilage injections extending over some years. These injections he first used ie the proportion of ten grains to the ounce, but latterly, as suggested by Dr. Ringer, he found the glycerine of tannin more serviceable, slightly modified, however, as to the diluting agent.

The precaution alluded to as to injecting is probably a most important one, whatever be the lotion employed; for although in some few instances the fluid may be injected too far, in the larger number it will not be injected far enough. Now in either case the surgeon is blamed

for a fault which in reality rests with the patient; and here it may not be out of place to describe the method which Mr. Hill recommends to all patients using injections:—

"The bladder having been first emptied, the bottle containing the lotion is to be well shaken, and about two drachms of it briskly poured into a saucer. This must be quickly drawn into a glass syringe with a bore in the nozzle equal to a No. 6 catheter. The penis is then to be held in the left hand, with the thumb and little finger respectively placed upon the superior and inferior portions of that organ close to the symphysis pubis, and the fore and middle fingers resting in like manner upon the superior and inferior surfaces of the glans, close to the meatus urinarius. The syringe, with the piston withdrawn, is now to be taken up with the right hand, and the nozzle as far as its shoulder carefully passed into the urethra. Previous to injecting, the thumb and little finger of the left hand must compress the root of the penis, in order that the urethra be closed against the passage of any fluid beyond this point. When a sense of tension is felt, the syringe must be withdrawn; but the front fingers must previously be so applied as to compress the glans, and thus prevent any escape of fluid from the meatus. Next, with the thumb and forefinger of the right hand, the fluid in the urethra is to be set in motion, and so kept for four or five minutes. This will be attended with a gurgling noise, from the mixture of air and fluid. Thus, when the injection has so insinuated itself within the folds and lacunæ of the urethra as to saturate the openings of the follicles and mucous glands, and permeate the whole of the affected structure, it is allowed to escape."

It is conceived that by these means the bladder is protected on the one hand, and on the other there is a certainty of the fluid being applied to the affected surface of the urethra.

Mr. Hill has furnished us with the notes of six cases in which the glycerine of tannin would appear to have been of great service. In several, injections of zinc, lead and alum had been employed without much benefit. The formula employed was the following: Glycerine of tannin, three ounces; olive oil and mucilage, of each one ounce.—*Lancet.*

ART. IV.—REPORT OF THE COMMITTEE ON PHARMACY. By THOS. E. JENKINS, M.D., Louisville, Ky.

Artificial Perfumes.—One of the most interesting cases of synthesis recently accomplished is that in which Mr. W. H. Perkin succeeded in producing artificially the odoriferous principles of new-mown hay and the tonquin bean. Until lately, nothing was known about coumarin, except that it was a colorless crystaline body, having the formula C9 H6 O2. Artificial coumarin was obtained from the hydride of salicyl, and has all the fragrance and beauty of that obtained from the tonquin bean.

Aniline Black.—when a salt of aniline in solution is exposed to the action of certain oxidizers, as salts of copper, chlorate and bichromate of potassa, it yields a black dye of such a depth that ordinary gall and madder blacks appear gray or green in comparison. The fastness of this color, its resistance to the action of acids, alkalies, soaps, and sunlight, render it of great importance to manufacturers, and make it one of the great achievements of late years.

Thymic Acid.—This acid, obtained from the essential oil of thyme, has been proposed as a succedaneum of carbolic acid or creosote. It emits no disagreeable smell, and is powerfully antiseptic. Its composition is C20 H14 O2. In a concentrated form it may take the place of nitrate of silver; and, as an antiseptic, it should be dissolved in 1000 parts of water, with the addition of a little alcohol.

Effects of Light on Vitality.—In a paper addressed to the French Academy of Science, Dr. Dubrunfaut examines the effect of light on vegetable and animal life. The researches of MM. Gratiolet, Cloez and Cailletet have, in a great measure, proved that the red rays of the luminous spectrum are those to which the important physiological function exercised by the sun on plants is to be exclusively attributed. The leaves in this case act as an analyzers of white light; they reject the green rays, which constitute the physical complement of red ones; and it is thus the various hues under which the organs of vegetation as seen by us may be explained. If plants were exposed to green illumination only, that would be tantamount to their being in the dark. But this kind of light, which the vegetable kingdom refuses

to absorb, is precisely that which is coveted by the animal. Red, the complementary color of green, is that which, owing to the blood, tinges the skin of the healthy human subject, just as the green color of leaves is the complement of the one they absorb. From this principle, so fully established by experiment, M. Dubrunfaut passes to its practical application to domestic life: All kinds of red should be proscribed from our furniture, except curtains. Our clothes, which, in point of fact, play the part of screens, should never be green, while this color, on the contrary, should predominate in our furniture, its complementary one being reserved for our raiment. In the same way he contends that the salubrious influence of woods and forests is a luminous and not a chemical effect. In support of these views, he mentions cases of patients whose broken constitutions were restored merely by long exposure to the sun in gardens deprived of trees or other obstacles to light; he quotes the instance of four children that had become chlorotic by living in one of the narrow streets of Paris, and that regained their health under the beneficial influence of the solar rays on a sandy sea-coast.

Action of the Pancreas on Fat and Starch.—The influence exerted by the pancreas upon fats appear to operate by breaking up the aggregation of the crystals of the fat and altering its hydration. It alters the molecular condition of the fat, mingling it with water in such a way that even ether cannot separate the fat from the water. A permanent emulsion is thus formed, ready to mix with a large quantity of water whenevr it may be added.

The pancreas, therefore, in acting upon fat, does not decompose it into fatty acid and glycerine—the absence of the glycerine from the watery stratum, and the presence of the glycerine in the pancreatized fat of the ethereal stratum, having been demonstrated.

It is well known that, in addition to the influenee of the pancreas upon fat, it has the power of converting starch into glucose by simple mixture. The property remains to a certain extent after the pancreas has exhausted its property of acting upon fat. The quantity of pancreas which, before mixture with fat, will convert about eight parts of starch into glucose, after saturation with fat, will still convert about two parts of starch into glucose.

The Aetion of Veratria.—Praag has arrived at the following conclusions from his experiments:

1. Poisoning by veratria diminishes the intensity of the respiration and of the circulation.
2. The muscles lose their tnesion.
3. The sensibility of the peripheral nerve is diminished.
4. The secretion of urine is slightly, that of saliva markedly, increased.

Kölliker deduced from his observations:

1. That veratria excites the medulla oblongata and the spinal marrow, and causes tetanus that does not last long.
2. The brain is not affected, at all events, before the spinal marrow.
3. It has no influence on the trunks of the motor nerves. The apparent paralysis depends on paralysis of the muscles.
4. The striped muscular fibre very soon becomes paralyzed and motionless.
5. The topical application of dilute solutions affects the spinal marrow and the medulla oblongata, but not the nerves.

Oxygenized Blood and Decapitation.—According to the experiments of Claude Bernard, if oxygenized blood be injected into the arteries of the neck immediately after decapitation, warmth and sensibility return, the eyes get animated and display such perception that an object shaken before them will cause winking and movements of the eyeballs, as if to avoid injury.

Watering Streets and Sidewalks.—The practice of deluging dnclean streets and sidewalks (not merely sprinkling them) is deleterious to the public health, as the rapid evaporation of the moisture carries with it into the atmosphere a large amount of poisonous organic matter calculated to breed disease. Street filth is far less deleterious when dry than when moist during the extreme heat of summer, sprinkling furnishing one of the two conditions that are absolutely necessary before decomposition can take place, namely, moisture.

Animal Quinoidine.—This curious substance was discovered by Dr. Dupre, and first announced by Bence Jones. We learn from the "Gazette Hebdomadaire" that Dr. Calvert has proved before the Societie de Biologie that this is not produced in the tissues, as previous observers supposed, but is found in most articles of food, especially wine and vegetables. It is introduced into the organs with these ingesta and mixes with the fluids of

the body, like iron, but is never originated there. His researches tend to prove its identity with quinine.

Curious Effects of Thallium.—This substance has the property of entering the circulation and producing the most offensive odor in the perspiration of the parties taking it. Dr. Bunsen was compelled to absent himself from society for four weeks on this account. This one property will kill it, for all practical use, in medicine. Its action is similar to zinc and iron in the economy, acting as a tonic, and in large doses producing headache.

The same thing was said of compounds of tellurium several years ago, when Prof. Simpson gave them to students of his class by way of experiment (having run out of subjects.)

The Calabar Bean.—One of the Paris journals asserts that this has been found to be an antidote to strychnine. The latter destroys by spasmodic contraction; the former, when taken alone, paralyzes, and consequently neutralizes the action of strychnia, if given after that poison. The most interesting effect of the calabar bear is that of contracting the pupil of the eye, whereby distant objects are apparently magnified and seen nearer, and it is now considerably used for increasing the power of accommodating the eye to distances. Experiments go to show that calabar bean is very valuable as a remedy in tetanus.

Preservation of Anatomical Specimens.—The process of M. Von Vetter: "Add to 7 parts of glycerine at 22° one part of raw brown sugar and a half a part of nitre, till a slight deposit is formed at the bottom of the vessel. The portion required to be preserved is then plunged in, dried or not dried, and is left in the mixture for a time proportioned to its dimensions; a hand, for example, should remain 8 days in the liquid; when it is taken out it is as stiff as a piece of wood, but if it be suspended in a dry and warm place the muscles and articulations recover their supleness.

Venom of Toads.—Experiments made by MM. Gratiolet, Clocz and Vulpian show that the matter exuding from the parotid region of the toad acts as a poison when introduced into the tissues. A tortoise of the Testudo Mauritanica, lamed in the hind foot, was completely paralyzed at the end of 15 days, and the paralysis lasted during several months. Some savages in South America used the acid fluid of the cutaneous glands of the toad, instead of the curara. The venom exists in somewhat

large quantities on the toad's back. Treated with ether it dissolves, leaving a residum; the evaporated solution exhibits oleaginous granules. The residum contains a toxic power sufficiently strong, even after complete desiccation, to kill a small bird.

Cholerine.—Dr. Frankland has been investigating some of the physical properties of cholera matter, cholerine. He shows that it passes through filtering paper, and water containing one five-hundredth of the matter is not entirely purified by transmission through animal charcoal.

Infusoria in Whooping Cough.—According to M. Poulet, in the vapors resulting from the respiration in this disease, microscopic examination detects great numbers of small infusoria. The most abundant, as well as the smallest, he refers to the species described as Monas (Bacterium) termo; others, less numerous, slightly spindle-shaped, two or three hundredths of a millimetre long and about one-fifth as wide, belong to Monas (Bodo) punctum, or Bacterium bacilius of the micrographers. Thus, whooping cough, in the alterations of the expired air, ranges itself in the class of infectious diseases, with small-pox, scarlet fever and typhoid fever.

M. Chauveau, of Lyons, whose original researches on the vaccine virus are known to the profession, has received a well-merited reward from the Institute of France, in the shape of a gold medal.

Chemical Force of the Solar Light.—This, or actinism, as it is called, upon which organic nature depends so largely for life and health, varies very much under different conditions; so much so that, within the tropics, it is said to be very difficult to obtain good photograms. The apparatus for determining it relatively has lately been improved by Bunsen and Roscoe, in a manner analagous to that for measuring ozone. After many experiments, they have succeeded in preparing paper of a standard sensitiveness, in which the tint produced in a given number of seconds varies in exact proportion to the intensity of chemical force in the light employed. It was found in France that the acting intensity varied from 1 to 20 between December and June.

The New Anæsthetic.—A very opportune discussion took place at the Medical Society of London, on April 18th, on the so-called anæsthetic nitrous oxide gas. A question on the subject addressed to the President, Dr. Richardson—whose authority on such a point cannot be ques-

tioned—drew from him a clear and careful summary of its action. It was painful, he remarked, to see the childish excitement with which nitrous oxide and its effects had recently been dwelt on. The gas had been treated as an unknown, wonderful and perfectly harmless agent, whereas, in simple fact, it was one of the best known, least wonderful and most dangerous of all the substances that had been applied for the production of general anæsthesia. No subject had been physiologically studied with greater scientific zeal or more rigid accuracy; and no substance had been more deservedly given up as unsafe and unfit for use. It had caused death in the human subject, and on animals it was so fatal that, with the utmost care in its use, it was a critical task to thoroughly narcotize an animal with the gas without actually destroying life. In some cases, also, animals died after recovering from insensibility.

Respecting the mode of action of the nitrous oxide, Dr. Richardson explained that it was not, in the true sense, this agent had caused the insensibility. It acted indirectly, and the immediate stupefier was really carbonic acid. In fact, nitrous oxide is an asphyxiating agent. There are two explanations of this. It may be that the nitrous oxide quickens the oxidation of blood, and so causes accumulation of carbonic acid in the blood; or it may be—and this is most probable—that it acts by checking the outward diffusion of carbonic acid. The vapor density of nitrous oxide and of carbonic acid is the same, namely, 22, taking hydrogen as unity; and as diffusion of gases into the blood and out of it is governed by the same laws as in ordinary diffusion, to make an animal breathe nitrous oxide is virtually equivalent to making it breathe carbonic acid itself, the diffusion of carbonic acid being so determinately impeded. The living phenomena were also in character; the arterial blood was rendered venous by nitrous oxide; the animal temperature fell; the skin became livid. And, although these symptoms might be induced many times without actually destroying life, they could not be sustained for any length of time without certain disaster. Dr. Sansom followed in nearly the same strain.

"In speaking out thus boldly to a professional audience, Dr. Richardson has not spoken a moment too soon. The *ad captandum* method of applying the most potent medicinal agents against the teachings of scientific ex-

periment and the experience of accepted observers, is a phase in physic which requires to be put down with a strong hand. Administration of nitrous oxide, or laughing gas, as it is commonly called, is becoming a pastime to amateurs. We hope these timely words will prevent a catastrophe. If they fail, the fault or neglect will not rest with us."—[*Lancet.*

Rheic Acid, obtained by Kubly, possesses a purely astringent taste, is sparingly soluble in cold water, soluble in hot water and alcohol, insoluble in ether. When heated it is decomposed without melting, giving off white fumes. It reacts feebly acid, and precipitates glue and the alkaloids from their solutions; salts of the sesquoxide of iron are precipitated dark blue. Its elementary constitution corresponds with the formula C40 H16 O10.

Sub-nitrate of Bismuth, has been adulterated with 25 p. c. of phosphate of lime, which may be detected by dissolving 15 grains in a little nitric acid, or, better, muriatic acid, adding tartaric acid, followed by excess of solution of caustic potassa. Bismuth remains in solution, while phosphate of lime, if present, is precipitated.

Dr. Gunning calls attention to the fact that nearly all the metallic bismuth of commerce contains arsenic, and states that, in preparing the sub-nitrate, he found no difficulty in removing the arsenic, if the solution of bismuth in nitric acid is so far diluted that a slight permanent precipitate is formed, which, when permitted to subside, contains all the arsenic.

Benzoic Acid is now produced in large quantities from naphthaline. M. Adolph Ott gives the following as the reactions occurring by the process of Laurent: The naphthaline is transformed into bi-chloride of naphthaline (C20 H8 2C12), which, by oxidation, is converted into phthalic acid (C16 H4 O6 2HO), and the latter into phthalate of ammonia. From this, by simple distillation, phthalamide is formed (C16 H5 NO4), which, when distilled with hydrate of lime, forms benzonitrile (C14 H5 N.) On boiling this with solution of caustic soda, benzoate of soda is formed, from which benzoic acid is readily precipitated.

Hippuric Acid.—Reinsch, who has found chenopodin and coumarin in a large number of grasses examined by him, thinks it probable that *hippuric acid* is formed in the stomach of herbivorous animals by the decomposition of these principles.

Creasote.—It has been observed that commercial creasote will form with two-thirds its weight of collodium a gelatinous compound; but, according to the observations of Rust, this is not the case when *pure beach-tar creasote* is employed, and that carbolic acid is necessary to form the gelatinous compound. The author recommends this reaction as a test to distinguish between the two substances.

Cantharidine.—The following is a simplified process for preparing cantharidine, by which is avoided the difficulty of separating the fatty and other matter by which it is accompanied:

The crushed flies are exhausted by chloroform, as suggested by Proctor; the solution is distilled to dryness by gentle heat, and the green residue treated with bisulphide of carbon, by which the resinous, fatty, waxy, and other matters are dissolved, leaving the cantharidine as residue. This is washed with bisulphide carbon and crystalized from chloroform.

Morphia.—Horsely states that when a hot solution of acetate of morphia is mixed with a few drops of solution of nitrate of silver, the latter is reduced to metalic silver, and if to the filtered solution nitric acid is then added, the blood-red coloration is produced. The author states that, by this test, it is distinguished from all other alkaloids, and that 1-200th grain of morphia may be recognized. The addition of red prussiate of potassa to solutions of morphia produces, in the course of a few hours, a cherry-red color.

Quinia.—Stoddart recommends, as a test for the purity of quinia from quinidia, cinchonia and cinchonidia, to dissolve 6 grms. of the suspected article in a test tube, by 5 grm. sulphuric acid and 3 grm. of water; to this is added 7.5 grm. ether, 18 grm. alcohol, and 2 grm. of an 8 p. c. solution of caustic soda. The mixture, when well shaken and allowed to rest for 12 hours, will deposit all the contaminating alkaloids, leaving the quinia in solution. The quinidia forms an oily layer at the bottom of the liquid.

M. Parrot recommends, as a test for salicine in quinia, by which one-half p. e. is readily detected, to introduce the suspected salt in a flask containing a little water, adding to this a small quantity of sulphuric acid and a corresponding amount of bichromate of potassa. A curved tube, dipping into a little water, is attached and heat ap-

plied, when hydrate of salicyl will distill over if salicine is present, which may be determined by adding a few drops of perchloride of iron to distillate, by which a more or less deep violet color is developed.

Strychnia.—Riche, who has for the past eleven years experimented on the influence of putrefactive decomposition on the forensic determination of strychnia, finds that the alkaloid can readily be determined in the heart, lung and liver of a steer, after it had been kept for eleven years in loosely-covered jars, under shelter.

Alcohol.—The following method is said to give the most definite results for recognizing the source of alcohol: Mix the alcohol with an equal bulk of pure ether, then add an equal bulk of water and separate the supernatant ether. On evaporating the ether spontaneously in a capsule, the residue will give the characteristic odor of the spirituous liquid from which the alcohol was obtained. Rum, arrack, cognac, potato and wood-spirit are thus easily distinguished.

Rhigolene.—The impression that rhigolene is explosive is refuted by the experiments of Dr. John D. Jackson, who has subjected it to many severe tests.

Ferments.—The researches of Mialhe on the preservation of ferments lead him to the conclusion that, when they are suitably dried, they will retain their activity indefinitely. These results are confirmatory of the assertion of Rouchoux, relative to the activity of dry vaccine lymph, and Mangili relative to the dried poison of serpents.

Blood.—Dr. Richardson, in a communication to the British Association, withdraws his ammonia theory of coagulation. Some recent experiments, which he had made on the influence of heat and cold on albuminous and fibrinous fluids, have shown him that the process of coagulation in these fluids is due to the communication of caloric force to them, and to a physical and molecular change determined by the condition of their constituent water. He further stated that, in the ordinary condition, there is a constant process similar to crystalization progressing in the living body, in the formation or construction of muscle and a steady and persistent change of force from those parts which are solidified by cold and liquified by heat, to those which are rendered solid by heat.

Perfumes.—M. Stanislaus Martin, in a letter to the So-

cietie de Pharmacie (Proces-verbal, Avril 1, 1868), remarks on the use of perfumes in ancient and modern times, as follows:

Perfumes played a grand part among the ancients. They were esteemed among the Greeks; in the East they were employed in all their sacrifices, and among the Gauls, the Druids perfumed their altars with the labiateous plants, resinous woods and juniper berries.

In our day the East is one of the regions richest in odorous resins and where an immense consumption of perfumes is made, as in China, Cochin China and Japan.

At Jeddo, in the numerous palaces of the Emperor, during the time of prayer, they burn a wood which exhales a delicious perfume, but the name of the tree is unknown, because it has so many synonyms. The essential oil of this wood, of which I have the honor to present a specimen to the Society, has a sweet, tenacious odor and is rapidly diffused. It is excessively dear. M. Chardin-Hadancourt, well known for his skillful knowledge of perfumes, has been unable to assign it a place among those already known.

At one of the recent meetings of the Royal Society of Edinburgh, a very interesting paper was read by Drs. Crum, Brown and T. R. Fraser, upon the influence of direct chemical addition upon the physiological action of substances. This paper is the first of a series which may be expected to throw great light upon one of the most interesting questions that can suggest themselves, viz: The relation existing between the chemical constitution and the physiological action of medicinal and poisonous substances. That such a relation must exist, we can have no doubt; and, indeed, attempts have been made by some to establish the relation in certain cases. Hitherto, however, the subject has not received the systematic investigation which it is now receiving at the hands of the authors of the paper.

Syrup of Chocolate has been found to be an effectual vehicle for disguising the bitterness of *quinia*.

Lotion of Glycerine and Cantharides for the Hair.—Take of aromatic spirit of ammonia 15 drachms, troy; glycerine, 8 drachms, troy; tincture of cantharides, from 2 to 4 drachms, troy; distilled rosemary water, 20 ounces. Mix. To be applied to the roots of the hair by rubbing in small quantities, once or twice a day, to stimulate its growth.

Adulteration of Medicines.—"There is no species of fraud so universal as that which, prompted by a sordid desire after filthy lucre, cheats mankind out of life and health."

Such was the expression of a writer, more than a score and a half of years ago, who published "Notes on Falsification and Adulterations;" hoping thus to prevent the sale of impure drugs and medicines.

Any one examining the present condition of the drug market will readily come to the conclusion that the attempts to falsify and adulterate have, since then, increased; for it has become almost as difficult to procure reliable medicines as it is impossible to discover the philosopher's stone.

True Method of Keeping Syrupus Ferri Iodidi—This syrup keeps perfectly, if, after being well made of thick syrup consistence, it is covered with parchment and kept in a warm place.

Dr. Jenkins has modified the formula of Prof. Lister for making "carbolic paste," by substituting glycerine for the linseed oil. He finds it a much more elegant and efficient preparation in every respect.

Prof. Gamgee's Method for Preserving Meats.—The animal, when practicable, is caused to inhale nitrous oxide gas. Before it is quite insensible, it is bled in the usual way. When dressed, the carcase is suspended in an air-tight receiver. The air exhausted and the receiver filled with carbonic oxide gas, a small quantity of sulphurous acid gas is added. This process has been found successful in preserving meat, fit for the table, for weeks and months.

ART. IV.—THE TREATMENT OF MALIGNANT TUMORS BY ELECTROLYSIS. By W. NEFTEL, M.D., New York.

Although I am preparing for publication my researches on the continuous galvanic current, where remarkable illustrations of the electrolytic treatment will be given in extenso, I consider it my duty to give at once a preliminary account of the following case, which may contribute to save the lives of many sufferers deemed incurable.

Hon. Th. T. D., a highly accomplished gentleman, 58 years old, consulted last year several celebrated surgeons

in London and Paris (amongst others Nélaton) with regard to a tumor in the left mammary region. They all advised him not to undergo any surgical operation, as they considered the tumor a malignant one, the removal of which would only hasten the fatal termination of the undoubtedly constitutional disease. The patient, nevertheless, insisted upon the extirpation of the tumor, and our great surgeon, Dr. Marion Sims, quite successfully performed the operation in Paris. Soon after the cicatrization of the wound, however, the axillary glands of the same (left) side began to enlarge, and in January last presented a tumor the size of an egg, consisting of a conglomeration of enlarged and indurated glands. Dr. Sims again extirpated this second tumor, the microscopical appearance of which was that of a real cancer (carcinoma of the axillary glands). The specimen was presented to the New York Pathological Society and examined by distinguished histologists. The wound this time healed very slowly, as it was accompanied by dangerous complications, an extensive erysipelas, high fever (107.8° Fahr.), rigors and delirium. Scarcely had the wound healed, when a new scirrhous tumor began to grow in the right mammary region, and very soon attained the size of an orange, or more. It now became evident that another surgical operation would be useless, for it could only call forth, as before, an immediate relapse, and perhaps in a more dangerous locality. As nothing remained to save the patient, who was perfectly aware of his condition, and whose constitution was broken down, I proposed the electrolytic treatment, expecting, as the best result, merely the local destruction and absorption of the tumor; for, in the present state of our knowledge, I could not have entertained any hope of producing by electrolysis the least favorable change in the constitutional disease.

On the 27th of April, and the 4th and 7th of May, in the presence of Drs. Metcalfe, Nott, and B. Howard, I performed the electrolysis by means of the large apparatus of Krüger and Hirshman, with elements of Siemens, subdividing, at the second and third operation, the cathode into three and four branches, connected with the needles by serres-fines. The latest improvements of the apparatus afforded the possibility of gradually increasing the quantity of the current, without interrupting the circuit, and of diminishing it in the same way, so that

the circuit was broken only by the extraction of the last needle. Not a drop of blood escaped. The first operation lasted two minutes, using ten elements; the second five minutes, with twenty elements; and the third ten minutes, with thirty elements. After the operation the tumor increased considerably in size, but became softer and more elastic. No febrile or other local or constitutional symptoms followed. On the contrary the patient, who before was weak, anæmic, and cachectic, began to gain strength and flesh; the tumor at the same time diminishing slowly but constantly. A month after the first sitting the tumor was found a great deal softer and smaller; at the end of the second month it had almost disappeared, and a fortnight later no trace of it remained. The general condition of the patient is now in all respects excellent, and new deposits can nowhere be detected. In his last letter he writes to me as follows: "I am not able to discover any new deposits anywhere, nor would the tumor in the right breast be detected by any ordinary observer. I hope the old devil who took lodgings there and was ejected took all his baggage with him."

The above-related case presents the following points of interest:

1. The patient has been examined by a number of celebrated physicians in Europe and America, who have all considered him affected by a constitutional cancerous disease, and the extirpated tumors, being real cancers, have proved the correctness of the diagnosis.

2. The described case brings me to the conclusion that the electrolysis must be considered not only as a local agent, as thinks Althaus, but as one capable of modifying, and even curing, the constitutional diathesis. I explain it in the following way: It has already been established, by experimental researches, that the electric current affects powerfully all protoplasmatic structures. Hence it is possible and probable that the cells (which have to be considered as bearers of the contagion and the cause of the generalization of the disease) get their protoplasma altered in such a way by electrolysis, as to lose its specific infectious properties and make it incompatible with the existence and propagation of the cancerous new formation.

3. Finally, this is the first authentic case of cure of a real cancer in a subject affected with constitutional diathesis. I think that if Althaus, to whom we are indebted

for the improved electrolytic method, did not succeed in curing a single case of malignant tumor, it is owing only to the imperfection of the apparatus with which he works. I have had one like it imported from London, and have ascertained, by the feeble deflexion of the needle of my galvanometer, and by the weak muscular reaction it produces, that Althaus' apparatus generates a very small current-quantity. This explains also why he is obliged to have recourse to so numerous and prolonged sittings (half an hour), whilst, with the excellent apparatus I am in the habit of using, imcomparably better results can be obtained in a much shorter period.

With regard to non-malignant tumors, I will give in my next paper an account of what I have attained by electrolytic treatment. Especially the soft tumors, nævi, etc., yielded very rapidly to it. A large goitre of eighteen years' standing has completely disappeared in the course of two months. So far as I can judge from my experiments on animals (rabbits), the electrolytic treatment of varicose veins and aneurisms promises to be highly successful. Examining microscopically the thrombi, I could repeatedly convince myself, in opposition to the assertions of Tachaussoff, that the organization of a thrombus really does take place, a fact which had been already experimentally demonstrated by the classical researches of Virchow, as far back as 1846. Again, it is not difficult to follow up the gradual transformation of the colorless blood-corpuscles into connective tissue-corpuscles, which was likewise accepted by Virchow.

But the most surprising effect can be produced, by the electrolytic treatment, on organic strictures of the urethra. The only case I have had is a gentleman who is yet under my observation. He has been suffering for about ten years from organic stricture impermeable even for the thinnest bougies. He told me that, though he had been under the care of many distinguished surgeons, no one could ever succeed in introducing a catheter into his bladder. On the 20th July I introduced a French catheter, No. 3, up to the principal stricture, situated in the prostatic part of the urethra, the prostate itself being enormously enlarged, and by a very simple contrivance, directed the electrolytic action of the negative pole upon the stricture during two minutes. Immediately, to my great astonishment, the catheter passed within the

bladder, and an immense quantity of turbid and decomposed urine was discharged. Since this the patient has been able to pass urine easier than he has ever done before. On the 24th July I repeated the operation with the same result, but using catheter No. 6 of the French scale; and I can now introduce Nos. 8 and 10 without resorting to electrolysis. So far as I can ascertain, the prostate itself does not seem to be enlarged any longer.

In spermatorrhœa this mode of treatment cannot be surpassed. I have had several cases of inveterate spermatorrhœa. which all yielded to a single or to repeated electrolytic treatment of the prostatic part of the urethra. I am sure that those who have once tried this method, will find it far superior to all the others, which are comparatively tedious and uncertian.

The first discoverer of the electrolytic treatment was Crussel, of St. Petersburg, Russia. Already in 1839 he demonstrated experimentally the different effects produced by the different poles, and used electrolysis in the treatment of strictures, exudations, tumors and ulcers.

A number of others followed him, amongst whom one of the most successful is undoubtedly my friend Dr. Morits Meyer, of Berlin. Dr. Althaus has quite recently improved the method and shown the great importance of the negative pole in the treatment of tumors. Certainly every observer will agree with him that electrolysis, besides annihilating the pain, acts in a threefold manner, viz: 1. Through mechanical disintegration of the tissues by the nascent hydrogen; 2. Through the dissolving action of the accumulated free alkali (potash, soda and lime). 3. Through the local modification of nutrition (by means of the vasomotor nerves) of the parts brought under the immediate influence of the current. To these local effects I can now add, from my own experiments and observations, the constitutional effect of electrolysis, which latter especially makes this method invaluable in many hitherto incurable diseases. One of its great advantages is that it is never followed by inflammation, suppuration, sloughing, or other disturbances, and that the patient can continue his usual occupation and mode of life.

The electrolytic treatment is called to open a large field for surgery, and will be applied very soon to a variety of surgical diseases, to the advantage of the profession and the benefit of suffering humanity. The surgeon now,

besides his biological knowledge and the use of his mechanical appliances, will acquire and appropriate to himself the knowledge of physics, electro-physiology, and the management of the complicated galvanic apparatus. —[*Medical Record.*

ANALYTICAL DEPARTMENT.

"Qui e nuce nucleum esse vult, frangit nucem."—PLAUTUS.

ART. I.—ANALYSIS OF VARIOUS ARTICLES. Published in the Medical Times and Gazette, the British Medical Journal and the London Lancet. (Original copies.) By PROF. JAS. M. HOLLOWAY, M.D., Associate Editor.

We copy entire a letter from Dr. James Morton, which appears in the Lancet, September 18, 1869, on the important subject of antiseptic surgery. From the testimony of many distinguished surgeons, published in the last few months, it seems likely that the true value of carbolic acid, in the treatment of surgical diseases, will soon be determined:

"*To the Editor of the Lancet:*

"SIR—Permit me, in answer to Professor Lister's note in your impression of to-day, to state:

"1st. That I have been often in his wards, and have seen many cases treated by him with carbolic acid.

"2d. That in the trial of it which I caused to be made in the wards under my own care, the cases were dressed by pupils of Mr. Lister, who had been trained by himself, and who had faith in his plan.

"I am not ashamed to state my belief to be that carbolic acid is inferior to several other disinfectants and antiseptics; and that the practice now advocated in severe surgical cases is a return to the dark days of surgery.

"The sneer implied in Mr. Lister's quotation from my letter does not require further notice.

"I am, sir, your obedient servant,

"JAMES MORTON, M.D.

"Athole-place, Glasgow, Sept. 4th, 1869."

In another letter in the same number of the Lancet,

Dr. D. Campbell Black, of Glasgow, says: "On all hands I have heard but one expression of opinion as to Mr. Nunneley's address [a part of which was published in the last number of this journal.—H.] this being that it was characterized by a comprehensive grasp of the subject, a fair statement of his propositions, and withal a sturdy eloquence and correct logic." He says, also, that "Dr. Morton gives expression in an unequivocal manner to sentiments entertained, I believe, by the bulk of the profession in Glasgow, regarding this, the latest toy of medical science, so-called."

Henry G. Sutton, Lecturer on Pathology at the London Hospital, in the Medical Times and Gazette for September 18th, 1869, gives the clinical history of a number of cases to show the similarity between rheumatic fever and pyæmia and the difficulty, oftentimes, of making a differential diagnosis. He agrees with Dr. Bristowe "that acute rheumatism has many symptoms in common with pyæmia." Although the formation of abscesses in the various organs and tissues is common in the latter affection, still joints often inflame without suppuration.

[The truth of the statement contained in the last sentence was fully exemplified during the progress of a case of pyæmia, following bone disease, occurring in the practice of Prof. Lewis Rogers, of this city, about two years ago. The patient, a boy aged about 11 years, had abscess of the left tibia, upper third, followed by abscess, involving the left clavicle, and besides others in various regions of the body, a well defined abcess of the lower lobe of the lett lung. In this case the left ankle joint and the right elbow and shoulder joints were inflamed and for a time it was thought suppuration had occurred therein. The patient finally recovered, with a loss, however, of three-fourths of the clavicle and the greater part of the upper two-thirds of the tibia. He is now a member of a base-ball club.—J. M. H.]

At the meeting of the Royal Medical and Chirurgical Society, June 22, 1869, Mr. Jonathan Hutchinson read a paper on "some points in reference to transverse fractures of the patella," in which the following conclusions were reached:

1. That after the ordinary transverse fracture of the patella, the upper fragment is not permanently dragged

upon by the quadriceps; that, on the contrary, the muscle remains quite passive, and that there is not the slightest benefit from elevation of the limb.

2. That the main cause of separation between the fragments is swelling of the soft parts and effusion into the joint, and that when swelling does not occur, or after it has subsided, it is easy to make the fragments touch.

3. That one of the chief causes of the frequent weakness of the fibrous union which results is the presence of fluid (synovia) between the fragments, and that it is not usually difficult, by ordinary means, to bring the fragments quite close enough to admit of union, were it not that the presence of fluid hinders its occurrence.

4. That a remarkable weakening of the quadriceps muscles is a common result of these accidents, sometimes amounting to absolute atrophy. That this partial or complete paralysis cannot be explained merely by reference to long rest of the limb, since the flexors do not share it. That it occurs in some cases in which the union is excellent.

5. That in almost all cases the quadriceps becomes slightly but permanently shortened by contraction, so that, however excellent the union may be, the knee cannot be bent without risk of stretching the uniting medium. That the chief danger after union consists in allowing the patient to bend his knee, and thus drag the lower fragment downward, there being little or none in allowing him to use the quadriceps as an extensor.

6. That patients with absolute paralysis of the quadriceps are yet able to walk fairly, and suffer no inconvenience whatever from contraction of its antagonists.

7. That "bony union" is probably an exceedingly rare event, whilst close fibrous union is easy of attainment; that it is quite impossible to distinguish between the two in the living patient, and, further, that all statements as to "bony union" are worthless unless made on examination at least a year after the accident. That the atrophic weakening of the quadriceps explains in many cases the patient's lameness, and that its frequent occurrence tends to reduce the temptation to resort to certain heroic and dangerous methods of keeping the fragments in apposition.

CLINICAL RECORDS.

"Ex Principiis, nascitur probabilitas: ex factis, vero veritas."

ART. I.—OVARIOTOMY SUCCESSFULLY PERFORMED. By J. W. BENSON, M.D., Professor of Principles and Practice of Surgery in the Louisville Medical College.

Mrs. G—. æt. 28, was married in 1867. Before marriage weighed 174 pounds. Temperament nervous. Has never been pregnant. Menses regular. In February, 1868, discovered that in stooping there was a "lump" in her left groin, but "could not feel it with her hands."

About March or April it increased perceptibly and appeared like a "knot about the size of a hen's egg." There was "some soreness," but it was not "to say painful." This condition was accompanied by "morning sickness and vomiting." The tumor now diminished in size, but when "hot weather came on it enlarged greatly." The enlargement seemed to be "more in her stomach than lower down," and progressive. Legs and feet numb, cold, swollen, painful—veins of inferior extremities enlarged and shooting pains of great severity, with increased coldness of the feet, supervened. Her husband states that the tumor seemed to him "like a balloon floating in water." Had been under the care of other physicians. Some considered her pregnant and pursued an expectant course. Another treated her for "enlargement and inflammation of the neck of the womb," etc. She consulted me about the 10th of July, 1869. I gave a written opinion of her case, stating that I considered it one of multilocular cystic disease of the left ovary, with effusion in the peritoneal sac, and recommended ovariotomy.

A few days afterward she fell and "hurt herself severely." The shape of the "swelling now changed; it be-

came more diffuse" and her strength failed rapidly. I visited her on Sunday, July 25th, in company with Prof. Ireland, who concurred with me both in regard to the diagnosis and the propriety of the suggested operation. On Wednesday, July 28th, I operated in presence of Drs. Gaillard, Ireland, A. B. Cook, Nesbit, Gibbs, Kendrick and Kelly. I first removed the fluid from the peritoneal sac by the canula and trocar. This fluid was comparatively thin, yellowish, and about ten or twelve quarts in quantity. The patient being now placed fully under the influence of chloroform, I made the usual incision in the lined-alba and extending from above the umbilicus, downward, an extent of about seven inches.

The parietal layer of the peritoneum was much thickened and dense. There were but few attachments and the tumor was easily isolated. The pedicle was wide and embraced the whole extent of the broad ligament. Close to its inner border, a large sinus was readily seen, and near its outer border were two or three much larger, whilst in the interval between them no vessels were apparent.

I included the first in a single ligature, then divided the pedicle outward and close up to the vessels at the outer border.

These I included in the ligature composed of four strands of English ligature silk (having broken one composed of two) and then detached the tumor. The size and density of the pedicle necessitated the use of a large ligature and hence one end was cut close to the knot and the other retained outside of the wound. Upon examining the tumor, it was found to be as predicted. Some of the cysts contained a fluid almost limpid, others, a jelly-like substance, and some a dark amber color and ropy substance which could be taken up and attenuated several feet, such was its tenacity. The point of rupture

caused by the patient's fall, was discovered. Including the fluid drawn off, and assuming that it came principally from the ruptured cyst, the tumor intact could not have weighed less than from thirty-six to thirty-eight pounds.

The ligatures fell on the forty-sxth day. The wound had healed rapidly by first intention, and the ligatures were closely embraced by the cicatrix, and the knots being large caused a few days of delay in their passage. The convalesence was retarded by painfully distressing tympanitis. This resisted the action of the whole ordinary routine of practice in similar cases. I then ordered the introduction of an elastic tube per anum, but this did not produce the desired effect. I now applied a close fitting syringe, inserting its nozzle within the tube and using it as a suction pump. This acted immedistely and was repeated but once or twice. The urine for a time was scanty and highly colored, and in the sitting posture there was dysuria. These symptoms soon yielded and the patient has resumed her ordinary avocation.

I am greatly indebted to Drs. Kelly and Kendrick for their kind, skillful and unremitting assistance and attention to the patient after the operation, and to them also, as well as to the other gentlemen present for their kind assistance during the operation.

ART. II.—CASE OF TRAUMATIC TETANUS.—TREATMENT BY CALABAR BEAN, ETC.—RESULTING IN DEATH, PROBABLY FROM THE PREPARATION OF THE BEAN USED BEING INERT. By M. E. POYNTER, M.D., Midway, Ky.

On Wednesday, June 9th, 1869, a negro boy, æt. 23, in jumping from a cherry tree, suffered a punctured wound of left foot by alighting on a stub, which was extracted by himself, and being barefoot, no other foreign

substance was believed to be carried within the wound. Wound treated by domestic remedies, and after suppurating finely for a week healed over in a week. No ulterior symptoms noticed until Sunday, the 20th, when a stiffness of the respiratory muscles and those of the neck and face were complained of which was partially relieved by frictions with hot whisky, camphor, &c. Rigidity of muscles increased through the day, Monday, 21st, and at 4 o'clock P. M., had strong convulsion, when a messenger was dispatched for me. Being five miles away, did not arrive until 8½ o'clock. There was then great rigidity of the recti muscles of the abdomen and the extensors at the back of the neck, but the convulsion had ceased. Trismus nearly complete; patient complaining of constriction around the chest and neck; breathing normal; pulse 90 and somewhat good; perspiration profuse; limbs unaffected; could raise himself to sitting posture with some difficulty, owing to rigidity of the muscles of the back; patient asked to have his head *held forward* to counteract the tendency to opisthotonos; has had no operation for thirty-two hours. Found the wound in the foot almost completely healed; the cicatrix, just behind the phalangeal articulations, being one-half inch broad, surrounded by tough exfoliating epidermis for a quarter of an inch from the circumference of cicatrix. Found no opening through which a probe would pass, nor anything to indicate the presence of a foreign substance, yet, because it is *usually done and universally recommended,* but without much hope of benefit, I laid open the cicatrix freely 1½ inch in length and completely through the deep fascia; considerable bleeding ensued but no pus was found, nor was any foreign substance detected after complete exploration. Ordered a large poultice of corn meal which was at once applied. Gave enema of warm soap suds which procured free ac-

tion from bowels. Having treated, unsuccessfully last year, a case of tetanus, (from nail wound in the foot) with opium, whisky, chloroform, ice-bags to the spine, etc. I determined to try other means and at once injected 1-50 grain atropine under the skin of the back of the neck, repeating the operation in an hour immediately over the sternum. Waiting an hour and finding the pupils somewhat dilated by the atropine,* I left one grain doses of acetate morphia, to be given every hour until sleep ensued. At this time, 10½ P. M., Dr. B. W. Thompson, of this county, came in and concurred in the treatment.

Tuesday, 22. At 4 o'clock, A. M., convulsions again occurred, but when I arrived at 8½, had passed off, leaving patient much in the same condition as on yesterday, but much prostrated; ordered beef tea and whisky at short intervals. Being requested to try the virtue of the cold douche, I had two large tubs prepared, one of which was filled with ice water, and placing the boy on his knees in the other, by the aid of two assistants, kept a continuous stream of water pouring on back of his head and neck, allowing it to flow down his spine for twenty-five minutes; when shivering was so severe, I had him sponged rapidly dry and covered warmly in bed. Remarked no improvement in his condition, though he expressed himself as "feeling better" during the early part of the operation. Ordered same operation every four hours, with same dose of morphine every hour, with beef tea and whisky. Again at 4 P. M., had more protracted and painful convulsions than ever; after which rested as before, through the night.

Wednesday 23. Found him greatly prostrated, though uncomplaining, except when asked his condition. Masse-

*Atropine would have been continued, but being unable to remain with the patient, was afraid to risk it in the hands of negro nurses.

ter muscles more strongly contracted and extensors of neck quite rigid. Touching him any where, especially about the abdomen, produces violent spasms of all the muscles which as quickly abated upon removing the hand. Having procured some of the extract calabar bean, I determined to abandon every other remedy and give this a fair trial, which was begun at 9 o'clock, Wednesday morning, forty-one hours after the first convulsion. Drs. Jno. A. Hamilton and B. W. Thompson being in consultation, one-fourth grain of the extract was injected under the skin over the sternum every hour and the patient closely watched for the constitutional effects of the remedy. After three or four hypodermic applications that were alternated by ½ grain doses in pill administered every hour through the day.

The spasmodic jerkings to whlch the patient was occasionally subjected induced us to use chloroform throughout most of the day (Wednesday), only partially producing anæsthesia, but patient never wholly from under its influence. I was compelled to leave at 8 P. M., Dr. Thompson agreeing to attend to the administration of the remedies and watch the effects of the calabar. None whatever had manifested themselves when I left and he says did not up to the time of patient's death, which occurred about 12 o'clock Wednesday night, patient gradually sinking without any severe convulsions, though the occasional spasms were quite annoying for an hour or two before his death, having used all the supply of chloroform.

Of course this treatment, as well as all others in this fearful malady, is entirely empirical, but having seen some hopeful statements in regard to the efficacy of the calabar bean, I had hoped for much in this case, more especially as this is the third case of tetanus it has been my misfortune to treat in the last three years, and all

from wounds in the foot; the two former treated as the latter, with the exception of the calabar bean in the last, and all proving fatal. There was no contraction of the pupil or anything to show any effect whatever by the bean, and I am inclined to the opinion that it is an inert preparation, which is an unfortunate fact for my patient, but otherwise as to its reputation as a remedy in this terrible scourge.

ORIGINAL CORRESPONDENCE.

"Sit mihi Fas scribere audita."

VIENNA, 1869.

Did you want to solicit a personal favor that was in the power of all to grant, from any of the occupants of the professional equipages that dash in at the hospital door in the morning, we are sure you would select Prof. Billroth at the first glance as the man above all others of easiest approach. There's a benevolence and a kindness expressed in every feature of his face, which must win him, we fancy, as much practice as all his wisdom and skill, and there's that tenderness in his manipulation which avoids all wanton pain, so that little babies scarcely cry in his hands. And surely that's the highest praise that can be said of a great man in this department of science, that in the discharge of his duty as a surgeon he seems never to forget that of a fellow man.

Physically, he is by nature's birth-right a surgeon. Large, massive frame, commanding aspect and imposing appearance, he is just the man to whom those who only consider such qualifications would be willing to intrust their limbs and precious bones. A frank, open face, indi-

cative of a cheery, cordial mien, square, broad shoulders, heavily set on a body that would notch the scale so close on to two hundred pounds that one wonders how he has ever been able to wield himself into dexterity. As an operator we are hardly entitled to an opinion, as we visit his clinic but rarely, and he leaves most of his operations to his assistants while he occupies himself principally with a narration of his experience in like cases and with surgical pathology, which is his forte, and for which he enjoys more renown than any surgeon in Germany. Instruction is almost entirely clinical, cases being presented for an hour to one and a half, according to the number of patients, and then a half hour's discourse. His lecture room is always crowded, for his clinics are rendered especially instructive from the great variety of cases which are exemplified by plates, illustrations, and even photographs, which are always taken for anything that may be of future use. As you are aware, he is a most extensive author; his exhaustive work on general surgery being a standard compendium, while his contributions on the pathology of fever, the development of blood-vessels, osteoneoplasms, and the pathology of tumors, have been as large as valuable. The clinic room, a lofty oblong apartment, with a large window from the floor to ceiling which floods the centre with light, seats perhaps three hundred students, and is so arranged with rapidly rising seats that a better view of the arena is obtained from any point than is usually the case.

First is presented to-day a case of simple fracture of the leg. This is dressed before the class, in the plaster of Paris bandage, the only difference between this and our own application being that the limb is first surrounded with a layer of cotton instead of the simple roller, before the saturated bandage is applied. In compound fracture an opening is left in the bandage over the wound, which

is covered with the carbolic acid dressing of Lister. Next follows a case of umbilical hernia of nearly fist size in a newly-born infant, or rather a partial eventration from defective development of the abdominal walls. The professor describes two forms, the *hernia umbilicalis* and the *hernia funiculi umbilicalis*, wherein the intestine is protruded within or into the cord. Cases of the latter variety are of very rare occurrence and are generally fatal before the ninth day from peritonitis or gangrene, from exposure, as operative procedures are out of the question. There are, however, a few rare cases on record in which even large hernias have been perfectly covered over with integument, and he relates one in which the tumor was about half fist size wherein the cure was complete by the ordinary process, leaving a large cicatrix. Next, a case of severe supraorbital neuralgia of long standing. In the course of his remarks on the therapeutics of this affection, he recommended the subcutaneous division of the nerve as a criterion for the efficacy of an exsection; if the division afford temporary relief, in all probability an exsection will secure it permanently. An infant of a few months was presented with hair lip and cleft palate. Operation deferred till the age of one and a half to three years. If the palate be unaffected he does not hesitate to operate at the earliest age; but if fissured, as in this case, experience has taught him that it is better to postpone the operation.

Case of phymosis, with underlying ulcer. The professor has long since ceased to operate with the knife in these cases, as the wound only extends to the diseased surface. The treatment is the insertion of sponge tents, which is done in the following manner: Some 5 or 6 flat triangular pieces, each about an inch long and one-fourth of an inch wide at the base, after being dipped in oil are successively inserted between the prepuce and the glans,

the pointed extremity of each extending back to the angle of reflection; these are allowed to remain for twelve hours, when they are substituted by new ones, forty-eight hours generally sufficing to dilate the prepuce sufficiently for reduction. In a case we saw thus operated on at Hebra's clinic, the insertion was not altogether a painless affair.

Next presented a large cancerous tumor of the mamma, the adjacent axillary glands all involved. This participation of the axillary glands does not depend so much on the size of the tumor, or its age, as on its position. The nearer the outer surface of the mamma the more likely the infection of these glands, because the lymph vessels, which are everywhere abundant over the mamma, here takes the direction of the axilla. An operation on this case was refused with the remark that the patient had presented too late. He believes, and indeed occasionally shows patients in proof, that an early extirpation is often of permanent benefit.

Quite a little buz of admiration was raised from the class a few days ago by the employment of the sounding board on the sound for stone in the bladder, the clink being audible over the entire class room, and we succeeded in raising the virtuous indignation of several of our Teutonic friends, by informing them that we had seen the instrument used in America fully three years ago. Indeed we do remember well with what peculiar gusto it was employed by the professor of surgery in the clinic of the University of Pennsylvania on the day succeeding that on which another eminent surgeon was reported to have cut another patient for a non-existent stone.

Having been favored with a card of invitation, we wended our way a few weeks ago toward the old university hall to witness the ceremonies of the annual celebra-

tion of the Academy of Sciences. We were shown into a large building, with a handsome facade, near the centre of the city, at whose door we were relieved of our ticket by a porter in extravagant costume, who ushered us into the grand aula, where the ceremonies occurred. A really magnificent building was this aula, and possessing much historical interest; for it was here that the students were wont to congregate in secret in years gone by, to fire each other with the ideas which culminated in the revolution of '48. After this period the building was occupied by the military, until lately, when it has been devoted to the Academy of Sciences. The ceiling is everywhere handsomely frescoed, and the walls, plastered with a fine imitation of marble, are braced by fluted half columns of the genuine material. Above the centre of each side, are inscriptions and allegorical representations of the four chief departments, theology, philosophy, jurisprudence, and immediately over the speaker's desk, as filling the post of chief honor, medicine, represented by a dissection scene, with the inscription, "*Ars Tuendæ et Reparandæ Valetudinis.*"

We take our station near the door of entry, to observe Austria's eminent men in all the branches of science, as they appear all in heavy military court dress, with a sword suspended at their sides, and breasts bespangled with orders, all but the priests, who are present, too, in goodly number, attired in long black gowns, closely shaven faces, small round convex cap, covering the still smaller bald disc shorn right out of the centre of the scalp. After order was established and an opening address read by the chief justice, as president of the society, Prof. Rokitansky was called to the stand to deliver his discourse, which was the main feature of the day. And so stands before us now as we pencil you these notes, that star of the first magnitude in this quarter of the fir-

mament of science, which has shed forth its rays for so many years, and does still with scarce diminished lustre, and perhaps will after its existence ceases for long periods of time to come, even as astronomers tell us the case would be if one of our fixed stars should cease to be. And although the brighter light of Virchow has shaded it a little in these latter days, it is always to be remembered, if we may be pardoned for continuing the simile, that Rokitansky's dates further back into the time when the night was more obscure and when there was more need, if such an expression is ever right, of any light whatever.

Rokitansky is another self-made man. Toil and research and study are written in every furrow of his face. "*Inter tædia inter labores*," as Avicenna remarked of himself of yore, has he, too, only attained his present proud position. Nor has nature been lavish in her gifts. His delivery is exceedingly poor, voice low, grating, monotonous, manner perfectly passionless and passive. It is only by straining attention to the matter that one becomes cognizant of the wealth of ideas that dwells among the caverns of his brain. His subject on this occasion is the mutual obligation, or if you will permit a liberal translation, the connection between all forms of animal life; and as we only propose to retail you matters of gossip and novelty, we will content ourselves with the remark that it is strongly tinctured with Darwinism. It is followed through attentively by all that crowded hall, and its close is cheered quite lustily after the quiet, undemonstrative German style, and it is only now, as he leaves the desk, that we catch his large, full eye, for he has never raised them once from his printed pamphlet during the whole three-fourths of an hour of its perusal.

Personally, we would call him ordinary, in the proper meaning of the word. We have looked again and again

for some peculiarity of feature or expression whereby you might distinguish him from the rest of mankind, of average height and build, and fair preservation at, say, sixty years or more. But aside from the few points mentioned, we find none; so if we were compelled to describe him we would have to do it negatively, and that, like the diagnosis by exclusion, requires too much time. Being then unable to individualize his person with a pencil, we will revenge ourselves by an attack upon his dress at this particular time, which he with all the others are called upon to assume on state occasions, and which derogates no little from the dignity of their positions. Fancy a professor, with gray hair, attired in a double-breasted blue coat, with a huge order on his breast flashing out like a light-house at sea, and a pair of white pants with a broad gold stripe, and a huge sword dangling at his side, prepared like an executioner for the dread arbitration of Solomon. However in the world reconcile all this with a pair of spectacles. But just think of poor old father Braun, with all his too solid flesh, toiling along, with the chain and cross of his rectorship about his neck, on that hot day of the procession of Corpus Christi, bareheaded and on foot, like the Emperor and Empress, and Beust, the prime minister, and all the dignitaries of church and state, each with candle in hand, to offer a public acknowledgment to all the inhabitants of the city and half the neighboring country, who turn out every year to witness the spectacle of the truths of the Christian religion, which it is safe to say scarce ten believed.

The building for pathological anatomy is one of the finest of all the medical structures and is most complete in all its arrangements. Every professor has his private room for his own investigatons and there are lecture rooms, and dissecting rooms and rooms for medico-legal cases, besides the grand hall in the second story, which

contains one of the world's finest pathological museums, the labor of the professor's life. To satisfy a popular demand, there is one long chamber in which all bodies are placed on watch for a number of hours after death, and it presents a singular spectacle, when full, which is not seldom the case. Low beds are arranged on both sides of the wall, on each of which lies a corpse attired in a long black gown, while the hand is attached to a rope connected with an alarm bell above, which continues to ring when once set in motion until checked by the guard. A little fee to the watchman will develop its *modus operandi;* otherwise it is needless to state they have never been rung.

The manipulation of a *post mortem*, however, does not at all compare with that of Berlin in care or elegance; the fact is the material is too large. Certainly no one would ever leave Berlin for Vienna either for its microscopical advantages, but for the beginner the course of Scheitauer, Rokitansky's first assistant, leaves little to be wished for good demonstration in plain, practical pathology. It is reported that Rokitansky will issue the new edition of his work next year.—[*Cin. Lan. and Obs.*

DANVILLE, KY., September 20th, 1869.

To the Editor of the Richmond and Louisville Med. Journal.

On page 695 of this June number of the Journal, is the following foot-note: "Sichel, Donders, Von Græffe, etc., placard the streets with their advertisements, and in Edinburgh, the specialists have their specialty engraved on their door-plates."*

*This information was publicly given, during a session of the Medico-Chirurgical Society of Louisville, Ky. One of the speakers was formerly a resident of Germany; the other resided for quite a long time in Edinburgh. The London Lancet, commenting upon specialists in America, compliments them on their not placing their specialty upon either card or sign, and says that, in this respect, London specialists have a praiseworthy example placed before them.—ED.

I am not aware of the source from which this information was obtained, but a recent letter from Professor H. Knapp, M.D., lately professor of Ophthalmology in the University of Heidleburg, now a resident of New York, and one of the editors of the "Archives of Ophthalmology and Otology," simultaneously being published in this country and Germany, and a higher authority than whom, on all ophthalmological questions, is certainly not to be found in our country, contains the following:

"With regard to the advertising of specialists in Europe, I can tell you positively, that I never saw or heard of any placarding the streets of Berlin or Utrecht with advertisements of Donders, or Græffe, etc. I only know of one instance, where a young and boisterous oculist, of a small German town, had some posters, but they were soon destroyed and the over-hasty young man fell into general contempt. With regard to private cards or door-plates, there is hardly if ever a specialty put on the former and never on the latter."

A letter from Dr. Henry D. Noyes, says:

"I don't know what is done by specialists in Edinburg, but I well remember that the London Medical Journals commented pretty severely upon the advertisements of physicians in our medical journals, and the physicians there do not put their specialties upon their signs. In Paris physicians do not put out any signs at all, much less announce their specialties."

The following is one of the articles of the constitution of the "American Ophthalmological Society:"

"The members shall be graduates in medicine, in good professional standing, who have an interest in ophthalmic science and art. No member shall attach to his name in any public manner, the title of "oculist," or any similar title, or shall announce in print that he gives special or exclusive attention to special practice."

Dr. B. Joy Jeffries, of Boston, says, in speaking of the "American Ophthalmological Society:"

"I would say for our Society, that we are very strict, and at our meeting at Newport, in July, we turned out

of the Society two men, one for putting "oculist" on his card, the other on his door-plate."

I am, dear sir, yours very truly,

JOHN D. JACKSON, M.D.

CALHOUN, Ky., October, 1869.

Six or eight months ago I was struck with evidences of ovarian origin of sexuality, which, since that time, have received my careful attention and from my observation I am persuaded that the right and left ovaria are respectively the origin of male and female children. I assume, first, that when both ovaria are *seriously* involved in inflammation, etc., that it is impossible for a woman to conceive, or, if she does, that the embryo or product of conception will perish and terminate by abortion; and, second, that where the right ovarium is *seriously* inflamed etc., the left in a healthful condition at the time of conception, that the offspring is *certain* to be a female, and if the left be *seriously* inflamed and the right healthy at the time that conception takes place that it is equally certain to result in a male. In a number of cases in the last six months I have predicted the sex, on the above ground, and not in a single instance have I failed, and not only so, but from statistics that I have in my possession, I have counted back with women that I have treated for ovarian disease for years past, and I thus have not less than twenty or thirty unmistakable cases that go to prove the correctness of this theory. I would just here remark, that I have noticed that after I reduce ovarian inflammation of one side to a point that admits of comfort to the female that she is quite likely to conceive and in full harmony, too, with this theory—that even a sexual change will take place at such time—for if it be the left affected, it is apt to be a female, although her former

children may have all been males, and vice versa; it may be that, as it thus becomes the seat of some preternatural excitement, (and not too much, so as to interfere with its functions,) that it thereby gains the ascendency over its fellow of the opposite sex, and for this reason it would be well to ascertain, to a certainty, the state of the ovaries respectively at the time that conception takes place, from close inquiry, in testing this theory. From what I have observed, therefore, I am driven to the conclusion that every male child that is born into the world is of right, and that every female is of left ovarian origin. I hold that the destiny of an ovule, so far as sex is concerned, is unalterably fixed from its earliest existence and that the male seminal fluid has nothing to do whatever with this determination; that it is to an ovule what heat and moisture are to a grain of corn or other seed, that it simply awakens into life an inherent, latent principle when the process of growth begins and perfects itself upon arriving at a pre-fixed destiny. I have had no opportunity of testing this matter in any of the forms of extra-uterine pregnancy, nor where ovariotomy has been performed, but I doubt not that those cases would corroborate my position; but grant that this will *not* hold good where ovariotomy has been performed on one side—if my theory *does* hold good in *every single* instance where this operation *has not* been performed, I would, under such circumstances strangely suspect that God in his wisdom had decreed that, in the absence of one ovarium, the other should take upon itself the functions of the two. In conclusion, I would respectfully ask the members of the medical profession to test this matter, and reply through the medium of this journal. A. H. Bryan, M.D.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

"Judex Damnatur cum nocens Absolvitur."

THE STRUCTURAL LESIONS OF THE SKIN: THEIR PATHOLOGY AND TREATMENT. By HOWARD F. DAMON, A.M., M.D., &c. Philadelphia: J. B. Lippincott & Co. 1869. 1 vol. 8vo., pp. 255.

This volume is the second of a series, the first of which was noticed in the October number of this journal. Larger and of wider scope, it also treats of lesions, more important and interesting than formed the subject of its forerunner.

The following is the arrangement of the present work: 1st, Hypertrophies; 2d, Atrophies; 3d, Pathological New Formations. Under these heads are considered all the structural lesions of the skin and also some lesions which are not properly cutaneous diseases, viz: Lipoma. There is also an interesting supplement, containing "Brief Histories of Human Horns." Upward of ninety cases have been collected, extending over nearly three hundred years. The first case noted was published in 1599; the last in 1869. In a number of the cases, the horns were multiple, but in most they were single.

Among the hypertrophic lesions the author considers at some length the very prevalent and painful affection known as clavus, or corn. He says: "High heels and narrow toes may give elegance of form to a shoe, but this is often gained at the expense and discomfort of the wearer." Further on he remarks: "Fashion has a great influence in these matters, and many persons make themselves miserable in consequence of the erroneous idea that small feet are a mark of superiority in development. The Greeks, whose taste is faultless in this respect, have assigned to the human foot certain relative proportions, which are in harmony with the rest of the body. Their

customs, also, were favorable to the proper development of this member. The proportion which was most generally adopted for its length, by their best sculptors, is that of one-sixth of the altitude of the whole figure." He then inveighs against attempts to reduce by artificial means the dimensions of these organs. The treatment recommended is to pare the corn down to the sound integument, to keep cerate or soap in contact with the pared surface and to apply a drop or two of glacial acetic acid once daily for a few days. Shoes properly constructed are the chief means of prevention.

The article on Molluscum is faulty and incomplete. No allusion is made to the division of the disease into a chronic and an acute form. Molluscum Fibro Areolare is not mentioned even by name. The author does not believe in the existence of a contagious form and disposes of this part of the subject quite dogmatically, and with a mere passing remark. The question of contagion in this disease is generally acknowledged to be still *sub judice*. It is worthy of notice that Cailloux saw molluscum spread from bed to bed in the children's hospital at Paris until thirty of the little patients were affected. Hardy discovered spores in molluscum and considers it to be of a parasitic nature. Tilbury Fox inclines to this view, and also discovered a species of acarus in the sacs of molluscum tumors. He asks whether the peculiar cells described by Dr. Patterson may not be the eggs of these acari.

Bucnemia Tropica, or Elephantiasis Arabum, is well discussed, and illustrated by two beautifully executed lithographs of typical cases. The author omits to mention ulceration as a not infrequent occurrence during the course of this disease. Some times we have seen the breaking out of an ulcer attended by considerable reduction in size of the affected limb. We look upon the

presence of ulceration in bucnemia as contra-indicating ligature of the main artery of the limb, which may otherwise be followed by good results:

Kelis or Keloid receives very little attention at the hand of our author; in two pages of large print, is summed up all he has to say on this interesting and rather obscure disease. Having been hitherto described as one of the cancroids, we would naturally expect him to say something in reference to the supposed malignant nature of Keloid. In what respect it differs from true cancer, and in what consists the resemblance.

The tendency to ulceration, the severe pain and the marked proneness to return after removal in the same or some other part of the skin, are features which have merited for Kelis the name of cancroid. The author apparently looks upon it as a trifling affection. He says "Kelis sometimes gives rise to more or less intense pruritus and even pain." It has fallen to our lot to see a good many cases of this disease, and we have repeatedly seen these tumors the seat of almost unendurable pain, from which it was difficult to find relief.

Dr. D. advises excision of these growths, when of large dimensions. He acknowledges that they are liable to return, but recommends repeated removal of them. In this he is not borne out by the testimony of our standard authorities. Kelis seldom attains very large dimensions; it almost always returns afterward, and in an aggravated form; in fact a new impetus is generally given to its growth by the use of the knife. It sometimes undergoes spontaneous cure by interstitial absorption.

Excessive deposit of pigment is classed among the hypertrophic lesions. It is stated by him "that the deposition of pigment in the skin, under certain physiological and morbid conditions of the economy, depends upon the influence of the ganglionic nervous system, and especially

those portions which constitute the semi-lunar ganglia and solar plexus." He adduces in proof the increase in the amount of pigment deposited in the skin of the arcola of the nipple during pregnancy, in the skin of the abdomen and forehead, under similar circumstances, and in the external genital organs and perineum of both sexes at the age of puberty. These discolorations are dependent on the condition of the nervous system, since they are more or less directly connected with veritable nervous phenomena.

The color of the hair also augments or diminishes through the agency of the sympathetic nervous system. Several instances are then related: The case of Marie Antoinette, whose hair became gray in a short time from grief; of Mary Queen of Scots; and of Sir Thomas Moore, whose hair became gray during the night preceding his execution.

The chapters on Addison's disease and Elephantiasis Græcorum are both full and interesting.

There is a full bibliographical index at the end of the book, and at the close of each chapter is appended the bibliography of the disease described.

Five beautiful illustrations adorn this volume. Three of these are wood cuts, representing human horns; two are lithographs of Elephantiasis Arabum.

The present volume partakes, in many respects, of the faults of its precursor on the "Neuroses of the Skin." It is too bulky, and wanting in clearness and power of description to be really valuable to students. It is not sufficiently exhaustive to meet the wants of the medical scholar and the practitioner.

The book is elegantly bound and the paper and print are all that could be wished. J. A. O.

I.—Florida and the South. A Guide Book of Florida and the South for the Tourist, Invalids and Emigrants, with a Map of the St. John's River. By D. G. Brinton, A.M., M.D. Philadelphia. Geo. Maclean: 1869. From publishers.

II.—Œsophagotomy for Removal of Foreign Bodies—With History of Operations. By D. W. Cheever, M.D., etc. Boston: John Campbell. 1869. From publishers.

III.—Report of Excisions of the Head of the Femur for Gun-Shot Injuries. Circular No. 2. War Department, Surgeon General's Office. From Sur. Gen.

IV.—The Mechanism of Dislocation and Fracture of the Hip with the Reduction of Dislocation by the Flexion Method. By Henry J. Bigelow, M.D., Prof. of Surgery, etc. With illustrations. Philadelphia: H. C. Lea. 1869. From the publishers.

V. The Membrana Tympani in Health and Disease. Illustrated by Twenty-Four Chromo-Lithographs. By Dr. Adam Politzer, of the University of Vienna. Translated by A. Mathewson, M.D., and H. G. Newton, M.D., Brooklyn Eye and Ear Hospital. N. York: W. Wook & Co. 1869. From publishers.

I. It is only necessary to say for this guide book that it is concise, accurate and brief. The information given is interesting and valuable, and the cost of the manual is so small as to place it within the reach of every one. Those going to Florida, or interested in regard to it, can consult this work with advantage and with but little expenditure of time.

II. There is, as every student knows, but little information to be obtained on the subject of œsophagotomy from the library. This work of Dr. Cheever gives much valuable information, at a small cost and in a brief and comprehensive manner. Those interested on this subject can not consult any work with a greater return for the time, labor and money expended.

III. Circular No. 2, on excisions of the head of the femur, is certainly the most complete and valuable work of its kind in our language. It has been prepared with

great care and is the result of the severe and efficient labor of a zealous, honest and conscientious worker. Dr. Geo. Otis deserves the warmest thanks of the profession for this exceedingly valuable contribution to surgery and there can be no doubt but that he will, in the true appreciation of the scientific world, receive an ample reward for his patient and successful labors. The fullest credit is given to all who deserve credit for either their work or their contributions herein published and praise is impartially and with full justice given to Confederate and Federal surgeons alike. Indeed manifest errors on the part of Confederate surgeons have (with a single exception) been passed leniently in review, while frequent criticism is made in regard to the work of those medical officers who, with Dr. Otis, were members of the same army. The Confederate surgeon censured certainly can not complain of the just strictures made, if the very bad work described was his.

The chromo-lithographs are executed in the best style and the whole publication gives evidence of the care and liberality expended in its preparation.

IV. The Mechanism of Dislocation, etc., by Dr. Bigelow, will certainly become a classic authority in our libraries. It is far superior to any kindred production that has been published. The work is handsomely issued and can be purchased at a very small cost. It is a most invaluable contribution to surgery.

V. This work contains the result of the labors of a great master. The material contributed is of great practical value; the style is excellent, and is both concise and comprehensive. The work can be obtained at a small cost, and is issued in the best manner. The chromo-lithographs are beautiful specimens of art. Those wishing authority on this much-neglected and difficult subject, can not purchase any work that would be more practically useful and reliable.

MISCELLANEOUS.

"Non Omnes Eadem Mirantur Ament Que."

Analyses of the Life of Dr. Daniel Drake.—This distinguished physician was born at Plainville, N. J., October 20th, 1785, but he was only two years and a half

old when his parents moved to the West and settled in Mayslick, Ky. This was then a new settlement, and the only business of the emigrants was clearing the forest and cultivating the soil. With such surroundings, young Drake found it extremely difficult to obtain a school education, though he had opportunities for acquiring that practical knowledge of many matters which in after years ministered very materially to his success in life. He here acquired an intimate knowledge of nature, and formed habits of industry and close attention to business, while the physical labor he was called upon to endure added health and vigor to his constitution and rendered him more capable of meeting the sustained intellectual effort of his later days. He spent some months of each year at the village school (held in a log hut), and when he was sixteen he found himself in possession of only the rudiments of an education. Latin he did not attempt until he had studied medicine a year and a half. He left home when he was sixteen for Cincinnati, then a small hamlet, for the purpose of studying medicine under the guidance of Dr. Goforth. He was the first medical student of Cincinnati! The understanding was that he should study medicine four years, at the end of which time he would be a doctor. Accordingly, in 1805 he, having finished his term of pupilage, was taken into partnership by Dr. Goforth. Not satisfied, however, that his education should end here, he went the following winter to Philadelphia to attend a course of lectures there. On his return he married Miss Harriet Sisson, a granddaughter of Col. Jared Mansfield, a distinguished professor at West Point. She was peculiarly attractive in mind and person, and his attachment to her continued to the end of his life to be strong and romantic, although she died in 1825. In 1815 he attended a second course of lectures in Philadelphia and graduated with distinction. At this time he had already published his celebrated "Picture of Cincinnati," a work which did much for the progress and success of his adopted home.

Dr. Drake, on returning to Cincinnati, resumed his practice and also engaged in a number of other enterprises. He had a drug business and a dry goods store besides, both of which, however, failed. In those primitive times professional men were very commonly obliged to eke out their slender incomes with commercial enterprises. His next step was to deliver a course of lectures

at the Transylvania University, at Lexington, but he returned at the end of the session to Cincinnati. By the Fall he had organized in that city the Medical College of Ohio, in which Institution he held the chair of medicine. In consequence of misunderstandings with his colleagues he held this position only two years, at the end of which time he was expelled from his chair, he being the presiding officer on the occasion. From 1823 to 1827 he again taught in the Transylvania University, and with distinguished success, but never being quite satisfied away from Cincinnati, he returned to that city, and remained there practising his profession until 1830, at which time he accepted the Chair of Medicine in the Jefferson College of Philadelphia. Here his success was so great that he far surpassed, as a lecturer, the distinguished Drs. Geo. A. McClellan and John Eberle. His eloquence attracted the constant attendance of many of the physicians of the city and drew from the University a number of the students attending that Institution. His manner (to use the language of Dr. Gross) "was most winning and attractive, full of force, energy, and expression, and could not fail, of itself, to rivet the attention of the dullest intellect, while it was sure to captivate and charm the refined and cultivated." The strong attraction that the West had for him, however, drew him back again, at the end of the term, to Cincinnati, where he taught for one session in the Miami University. He then founded the Medical Department of the Cincinnati College, in which he taught with his usual brilliancy during the whole term of its brief career, his colleagues being Drs. Rives, of Ohio, McDowell (afterward in the University of Missouri), Harrison, of Louisville, Rogers (afterward in the University of Pennsylvania), and Jameson, of Baltimore.

On the failure of this college he accepted the chair of clinical medicine and pathological anatomy in the University of Louisville, Ky., which he held until the retirement of Dr. Cook gave him the chair of medicine, in 1844. He continued here, lecturing to immense classes until 1849, when he resigned. In another year he would have reached the age, when, by an act of the board of trustees, a professor became superannuated, and he thought it his duty to anticipate this law, although the trustees earnestly begged him not to do so, and abrogated the law in his favor. He then returned to the first college which

he had founded and to which he was firmly attached—but he only remained in the Medical College of Ohio one year, when he was induced to return to Louisville. After two more years of faithful service here, he finally returned to the Medical College of Ohio, which had been reörganized with a far abler faculty. He was not destined, however, to extend his labors any further, being suddenly arrested by the hand of death in 1852, just as he had completed his sixty-seventh year.

Dr. Drake's energy was wonderful, and in every good cause he was heartily interested. The number of useful Institutions which he was the means of establishing is surprising. "The Western Literary Institute and College of Professional Teachers," at Cincinnati; "The Commercial Hospital of Ohio;" "The Institution for the Insane," at Columbus, Ohio; "The Cincinnati Eye Infirmary;" the "Kentucky School for the Instruction of the Blind at Louisville," and other Institutions; all testify to the strength of his humanity and the greatness of his energy. In the cause of temperance he was earnest and an ever active worker. He was a prolific writer and used his pen in behalf of many subjects. The conditions of the railroads engaged his earnest attention, as did also the political state of the country. "His style was clear, fresh and vigorous, often eloquent and sometimes elegant. In 1827, he started the Western Journal of the Medical and Physical Sciences—originally a monthly, but later, a quarterly journal. This, he was connected actively with for twenty-one years, being much of that time the chief editor, and very often the largest contributor. Among his most valuable writings are a collection of Essays on Medical Education, which appeared successively in his Journal, but are now bound in book form. His best work, however, was on the Diseases of the Interior Valley of North America—which is "an enduring monument of his industry, research and ability." It is much to be regretted that the character of this eminently laborious and talented man cannot here be dwelt upon at greater length. He was peculiarly attractive in his manner and deeply beloved by his friends. His sensitive disposition and an impulse to resent real and fancied slights—together with his love of change, was the cause of his being connected with so many schools and colleges. In his family and with his friends, he was exceedingly true, frank, simple and affectionate. His en-

ergy was unbounded and untiring. For many years before his death he was a devout member of the Episcopalian Church, and used his pen freely in her service. He left three children to inherit his good name and reputation—one son and two daughters.

We are indebted chiefly to Dr. Gross' "Life of Daniel Drake" for these particulars.

Glycerine Solutions.—For the benefit of those who prefer using glycerine rather than alcohol as a solvent for many agents, we append a few articles, with their solubility in glycerine. Sulphur requires 2000 parts of glycerine; iodine, 100 parts; red iodide of mercury, 340 parts; corrosive sublimate, 14 parts; sulphate of quinia, 48 parts; tannin, 6 parts; muriate of morphia, 19 parts; tartar emetic, 80 parts; veratria, 96 parts; atropia, 50 parts; iodide of sulphur, 60 parts; iodide of potassium, 3 parts; sulphuret of potassium, 10 parts. These solutions are called *glyceroles.—Jour. Appl. Chemistry.*

Combination of Chloroform with Opiates for the Relief of Pain.—Dr. W. Marshall strongly recommends (Glasgow Med. Jour., May, 1869,) this union of remedies for anodyne purposes. From ten to twenty minims of chloroform are combined with one or two drachms of compound tincture of camphor (if the pain be moderate), or ten, twenty, or forty minims of Battley's sedative (if it be severe). This generally produces sleep within a few minutes, and its effects are more lasting than those of an opiate alone, and without its disagreeable after-effects. It ought to be given in some thickish solution, such as mucilage; otherwise the chloroform will fall to the bottom.—*The Practitioner.*

Milk is the best vehicle.—[Ed.

F. B. Greenough, M.D., in an article on Gonorrhœal Rheumatism in the Boston Med. and Surg. Jour., observes: "With regard to treatment, perfect rest is the most essential part. If the pain is severe, two or three leeches may be applied with relief. Evaporating lotions may be tried. When there is an effusion into the joint, the part may be rubbed with a salve containing iodine or iodide of potassium. If resorption does not take place, compression should be used, either by bandages, or still better by compressed sponges. All authorities agree that the remedies which have been supposed to be beneficial

in rheumatism, such as the alkalies, colchicum, iodide of potassium, etc., have no influence in this affection. Perhaps it is lucky for us that the differential diagnosis is not dependent on this fact alone. The urethral trouble must be treated exactly the same as it would be if no articular complication existed."—[*Ex.*

Bromide of Potassium in Dentition.—Dr. Salvatore Caro strongly recommends the local application of this remedy (The Medical Record) to allay irritation of the gums in dentition. He says: "In the most severe cases of odontitis, either with or without ulcerated gums and loose bowels, I have never failed to relieve the child by the application of the bromide of potassium. Almost immediately after the first rubbing on the gums, from being turgid, swollen and red, they assume their natural color, and a certain amount of ease is felt. Saliva commences to dribble; and, as if by enchantment, agitation, carpopedal involuntary motion, vomiting and looseness of the bowels disappear. As the vomiting and diarrhœa in this case are not the consequence of gastro-enteritis, but of an excitement of the stomach and the intestinal mucous membrane, owing to the inflamed condition of the gums, I suppose it will never be cured, either by scarification of the gums, or by the use of astringents or anodynes; but, as I shall hereafter prove, simply by the use of the bromide of potassium."—*Dental Cosmos.*

The Treatment of Pneumonia.—Dr. J. Hughes Bennett has an article in the Practitioner reviewing the restorative treatment of pneumonia, and contrasting the results with those obtained by other methods of treatment, particularly that recommended by Dr. Richardson. Regarding the management of acute pneumonia, Dr. Bennett considers the following axioms fully established:

1 The great end of medical practice is to remove the consolidation of the lungs, and restore those organs to their natural condition as rapidly as possible.

2 To this end everything that diminishes vital strength should be avoided, and nutrients administered as early as possible, to favor the cell transformation necessary for removing the exudation from the lungs.

3. There is no relation between the violence of the symptoms or the force of the pulse and the fatality of the disease. Young and vigorous subjects suffer most, but almost always recover soonest.

4. The weak pulse, want of reaction, non-disappearance of the pneumonic consolidation, or its appearance during the progress of exhaustive diseases, are the unfavorable signs of pneumonia.

5. Continued exercise or work after the attack; low diet; large blood-lettings; depressants, such as tartar emetic, and sedatives; expectorants, such as squills and ipecacuanha; mercury and violent purgatives, are opposed to the restorative treatment of the disease, and when not fatal, tend to prolong its duration,

6. Small blood-lettings of from six to eight ounces may be used in extreme cases, more especially of double pneumonia or of broncho-pneumonia, as a palliative tension of the blood-vessels and congestion of the right heart and lungs.

7. Local pain is best relieved by large warm poultices.

8. The true disease, that is, the exudation which has infiltrated itself through the pulmonary tissues and been coagulated, constituting hepatization, can only be removed, first, by the transformation into pus cells; second, by the molecular degeneration and liquefaction of these; third, by absorption into the blood; and fourth, by excretion of the exuded matter in a chemically altered form through the evacuations.

9. These processes are favored by supporting the vital powers; first, by rest in bed immediately after the attack; second, by beef-tea and milk during the febrile period, with a moderate amount of wine, if the pule be feeble; third, by beef-steaks and solid food as soon as they can be taken, with more wine or a little spirits, if the pulse falter; fourth, by mild diuretics on the seventh or eighth day, to favor excretion by the kidneys.

10. The same pathology and principles of treatment apply to all cases of simple pneumonia, whether single or double, the latter being only modified by the weakness of the patient, when more restoratives and stimulants are required.

11. In complicated cases other treatment may be required according to the circumstanees of the case; the pneumonia, however, being always influenced in the manner previously detailed.

The mortality in 153 cases treated on this plan was one death in 30½ cases. This statement includes 35 double and 24 complicated cases. Among the simple cases, single or double, the mortality was *nil*.—[*Med. Record.*

MEDICAL NEWS.

"Nulla Dies, Sine Linea."

The medical colleges of this city commenced their present sessions on the 4th of October, after preliminary lectures, commencing in the middle of September. Students are arriving daily, and there is the best prospect of there being a large class at each of the three colleges.

The University of Iowa is to have a medical department added to it. This department is to be located at Keokuk, Iowa.

Prof. J. McNaughton succeeds Prof. Alden March in the Medical College of Albany, New York. The venerable and distinguished March, it will be recollected, died of vesical trouble soon after his return from New Orleans, whither he had gone to attend the session of the American Medical Association.

Dr. Le-po-tai, a Chinese physician of California, is said to have 700 patients, with an income of $7,000 per week.

Mr. Frederick Stearns, the pharmaceutist, who has been advertising sweet quinine very extensively, was recently expelled from the American Pharmaceutical Association for advertising "a nostrum called sweet quinine, which contains no quinia, and is therefore a fraudulent imposture." The resolutions of expulsion were presented by Dr. Squibb, of Brooklyn, N. Y.

The most wonderful results are announced in regard to the use of sambucus canadensis in the treatment of albuminuria. If a tithe of what is reported be true (that is, if Dr. McNutt, of Marshall, Mo., be not deceived), this agent will take precedence of all others in general anasarca. The green bark of the elder is "infused in hard cider."

The use of carbolic acid in the treatment of intermittents has, after a fair trial, been abandoned. The results have been always unsatisfactory.

The next meeting of the British Medical Association will be held in Liverpool. Dr. Huxley will be President.

The Society for the Protection of Children, in Paris, offers 500 francs to the author of the best work entitled, "Guide to Mothers and Nurses."

The best paper in medical literature on "Concealed Accidental Hæmorrhage of the Gravid Uterus," is that prepared by Dr. William Goodell, physician in charge of the Preston Retreat, Philadelphia, Pa., and published in the American Journal of Obstetrics for August, 1869. This most valuable paper should be widely known. The admirable journal which published it has given to our literature many papers of the greatest value.

Among the students who passed the most brilliant examinations at the Faculty of Medicine in Paris, there were three women—one French, one Russian, and one American. The latter was especially well up in anatomy, dissections, pathology, and operations.—[*Medical Times and Gazette.*

Hippocrates died at the age of 109; Galen lived to be 104; Solon and Thales 100; Zeno 98; Diogenes 88; Plato 94; Lycurgus 85; Sophocles more than 100; Asclepiades also Juvenal 100; Newton 85; Fontenelle 99; Buffon 81; and Voltaire 84.—*Med. Gazette.*

The Rev. W. H. Milburn, the blind preacher and eloquent orator, has returned from Berlin whither he had gone to be operated upon by the renowned oculist, Von Græffe. The operation was a partial success and will be completed next spring.

In the last number of this Journal, some twelve or fourteen falsehoods from Dr. Theodore S. Bell, of this city, were exposed and information given that, on this account, no further replies would be made to one who had thus become unworthy of notice. Both those who know and those who do not know Dr. Bell, will be surprised to learn that he has just published a third pamphlet (of twenty-six pages) made up of vile pasquinades upon the personal and professional character of the editor of this Journal. Conversations occuring in his private parlor and imprudently repeated have been distorted, exaggerated and *published by this moral monster.* The editor's pecuniary transactions and private relations have been enquired into and every vestige of truth concerning them being suppressed, they have been so given to the public,

that the statement might induce all the possible injury which the unblushing and unscrupulous falsehood of its originator could accomplish. The author of such a tissue of falsehoods and infamous misrepresentations has proved himself to be what many have long suspected him of being, a contemptible vagabond, destitute of truth, honesty or decency. The editor has not read his pamphlet. Many respectable people have tried to do so and have dismissed it and its author in disgust. The work, however, is all that it is herein represented to be.

Can it be believed, that this pamphlet and its kindred predecessor, bear upon the cover the advertisement of the Medical Department of the University of Louisville, and that the executive officer of the Faculty of this Institution (with the knowledge and consent of his Faculty) gives to each student matriculated or sought to be matriculated, one of these filthy pamphlets, for "campaigning purposes;" for the purpose of injuring a competing School, which numbers among its Faculty the editor of this Journal. *Gentlemen* will find it difficult to believe this statement, and yet "'tis true, 'tis pity, and pity 'tis 'tis true;" "to what base uses we may return, Horatio!"

Extract of ergot for subcutaneous injection is thus made, from a formula recently published: Ext. ergot two parts, alcohol and glycerine, of each, seven parts.

One of the therapeutic novelties is the injection (subcutaneously) of the bi-chloride of mercury in syphilis.

The extract of calabar bean when instilled into the eye produces contraction of the pupil, but when injected hypodermically it produces dilatation of the pupil. It has been found to be the best antidote for atropine. Epilepsy treated by it is not removed or modified. It has given good results in the treatment of chorea.

It has been conclusively determined that the mucous coat of the human bladder will not, as a rule, absorb medicinal agents.

Cheap School Convention.—Prof. Mussey says there were "*four* living delegates" present and not *hree*. One of the delegates represented a dead school—the Shelby Medical College. Who is right?

EDITORIAL.

"Nullius Addictus Jurare in Verba Magistri."—Hor.

To the Friends and Patrons of the Journal.—As the other departments of the Journal are more than usually crowded this month, there is not space sufficient left for editorial remarks upon any partlcular subject or variety of subjects. The editor, therefore, embraces the opportunity offered, in closing the short editorial space remaining, of making a few explanations in regard to matter that has, in the past few months, been published in the editorial department of this Journal. He has, contrary to the policy of the Journal, published much that he did not anticipate publishing in regard to personal and controversial subjects, and while such matter has been published, in the shape of a supplement, *at his own expense* (and not at the expense of the patrons of the Journal, by devoting to personal objects space for which *subscribers* have paid) he has learned by experience that this partial custom on the part of the Press of bringing before the public controversial matter (even when necessitated apparently by attacks upon) the Press is a custom "more honored in the breach than in the observance." Such a field is one wherein the battles fought are of interest to but few more than the individual contestants; one whose laurels are either not worth the gathering, or which, like the Dead sea fruits, prove to be as ashes in the hands of those who obtain them.

The comments of the leading journals of this country in regard to controversial matter which has appeared in this Journal show, that it has, at least, not suffered any in the contests to which it has been invited. But were such success multiplied a thousand fold, it is at best but an unvalued and valueless reward. Gerard was filled with an honest and laudable pride when destroying the the monarchs of the African forests, but we can all understand the charitable regrets of Gulliver when he punished the impudent Lilliputians for attempting to thrust their tiny swords into his body. Such victories, however, are indeed valueless. The editor has therefore to cry *peccavi*, and to devote this Journal, *in all its departments*, to the legitimate purposes for which it was established. If the Review department, therefore, in its honest and legitimate management causes the ire of those

whose once imposing crowns are proved to be but tinsel and brass, they will be treated as was the Prince of Como, when his plausible impostures were unhappily exposed; they will be left to win a reputation which had been wrongly admitted and assumed. Let it be understood, therefore, that personalities and controversies are, for the future, banished from the pages of this Journal, and that the editor will continue striving, as formerly, to make it an exponent of the scientific views of the profession at large.

The subscription list of the Journal has been more than doubled in the past twelve months, and it is being almost daily increased. With the view of extending still more rapidly the circulation of the work, the editor will issue, *in December*, 1869, *five hundred* extra or specimen copies. He desires that these should reach the *reading* members of the profession, and, to secure this object, he asks the friends and patrons of the Journal to send him, by letter or otherwise, the names and addresses of such of their acquaintances, as would, in their judgment, desire to subscribe to such a work.

Manuscripts of great value are being constantly received, and the editor hopes thus to make this Journal, what it has always been, an exponent of the scientific views of the profession throughout the United States.

BOOKS AND JOURNALS RECEIVED.

The Mechanism of Dislocation and Fracture of the Hip. By Henry J. Bigelow, M.D., Professor of Surgery at Harvard University, etc., etc. With illustrations. Philadelphia: Henry Lea. 1869. From the publishers.

The Membrana Tympani in Health and Disease. Illustrated by twenty fine chromo-lithographs. By Dr. Adam Politzer. Translated by Drs. A. Mathewson and H. G. Newton. New York: Wm. Wood & Co. 1869. From the publishers.

Practical Chemistry; Arranged for the Use of Medical Students. By Wm. Odling, M.B., F.R.S. Illustrated. Philadelphia: 1869. H. C. Lea. From publisher.

The Science and Art of Surgery. By John E. Erichsen. From the fifth enlarged and carefully revised London edition. Illustrated with six hundred and thirty engravings on wood. With additions by John Ashhurst, Jr., A.M., M.D. Philadelphia: 1869. Henry C. Lea. From the publisher.

Transactions of Illinois State Medical Society. 1869.

Myxoma, or Hyperplasia of the Villi of the Chorion. By A. D. Sinclair, M.D. Boston: 1869. From the author.

New Variety of Malarial Fever. By T. C. Osborn, M.D., Greensboro, Ala. 1868. From the author.

Dawson on Fibrous and Fibro-Cystic Tumors. 1869: Cincinnati.

Hygiene. By A. L. Carroll, M.D. New York.

Illustrated Catalogue of Surgical Instruments, Appliances, Bandages, and Apparatus. J. H. Gemrig. Philadelphia: 1869.

Electricity. By A. D. Bockwell, A.M., M.D. New York. 1869.

Remarks on Cataract Extraction. By H. Knapp, M.D. New York.

John C Warren

THE RICHMOND AND LOUISVILLE

MEDICAL JOURNAL.

VOL. VIII. DECEMBER, 1869. No. 5.

ORIGINAL COMMUNICATIONS.

"Qui Docet Discit."

ART. I.—THE BINDER IN PARTURITION. Read before the Macon Medical Association. By C. B. NOTTINGHAM, M.D., of Macon, Georgia.

Labor is a physiological process resulting from forces inherent in the uterine constitution, and nature usually, is competent to conduct it with perfect safety to both the mother and the child. Hence, labors, the phenomena of which are natural in their order and sequences, would do well and terminate favorably without the aid or even the presence of the accoucheur. Unfortunately, however, in the beginning, progress or termination of the process, complications or departures from the usual course of events sometimes occur, grave and threatening in their character, requiring for their adjustment, correction or remedy, the best obstetrical skill.

These propositions being admitted, the corollary logically follows, that whilst the presence of the well-skilled physician is desirable, nay important in the parturient chamber, he will commonly find it necessary only to supervise the several stages of the great biotic procedure; doing but little other than holding himself in readiness to intervene in the fulness and plentitude of his powers, at any moment his well-trained eye, ear or touch may indi-

cate to his judgment that succor is demanded. The value of aid thus called for and promptly rendered, in the relief of suffering, the promotion of comfort, the calming of alarm, the building up of hope, the removal of danger, the prevention of injury, the saving of life and the giving of joy and happiness to an entire household, is beyond price, and probably meets with as just and full recognition and appreciation of its God-like beneficence as any attention bestowed or any services rendered in any of the specialties of professional life. Among the attentions, however, generally conferred on the recently delivered woman by her medical attendant, that seems to me to be entirely unnecessary and even hurtful, is the *application of the binder.*

The use of this agent, under a conviction of its utility has come down to us of this generation through a long line of predecessors in English and American midwifery, hallowed by time and rendered, in the opinion of many, almost sacred by the unqualified endorsement of authors and teachers, whose learning and wisdom, observation and experience, services and success, as obstetricians, justly challenge admiration and lay tribute on the votive offerings of the heart. But as, without having actively arrayed myself against authority on the subject, I have rarely, for many years, availed myself of the supposed benefits of this remedy, I deem it proper to give to the members of our organization, in this brief paper, the reasons for my departure from a usage so general with the profession and so popular with both the profession and the non-professional—hoping a vindication of my views and practice, just and complete, may be found in the principles and theories herein enunciated.

In a renouncement of the claims of the binder to utility, it may be well to examine separately the indications it is supposed to meet, and the purposes for which it has been

recommended. And, first, in what way and to what extent can it be made available in the correction or prevention of that alarming, and often most fearful incident of the parturient chamber, *hæmorrhage?* This is an evil, fruitful of trouble and danger, that comes under the most varying circumstances. It occasionally marks the conclusion of a labor that may have been natural in all its phenomena and attendant events. It never occurs without at once awakening anxiety in the mind of the accoucheur and often the most appalling terror in that of the patient and her friends. Any agent possessed of preventive powers against it or corrective influence over it, should, as it doubtless does, commend itself to our willing favor and ready adoption.

When it occurs immediately on the extrusion of the placenta, it proceeds from a want of that degree of contractile action that closes firmly the uterine tissue. To secure this degree of tonic action those old but usually most sensible and trustworthy authors, Drs. Burns and Gouch, advise that immediately after the removal of the secundines a broad bandage shall be applied. Following these authorities, apparently with but little thought and almost in identically the same words, writers and teachers, English and American, not French, I am happy to say,* one after another as their dicta fall from the press, without, I believe, an exception among those of note, have continued up to the present hour to make a similar recommendation, with the view of obtaining what they think will be a valuable exciting or stimulating effect on the tired and jaded muscular fibre. But is there reason in their theory? Against its correctness the well known law of the enfeebling and paralyzing influence of smooth pressure upon muscular textures generally appear to mil-

*French authors are not unanimous, some advocate, some oppose and numbers are silent on the subject.

itate most strongly. Whilst the correctness of physiological truth that the immediate effect of the application of pointed bodies or sharp instruments to muscular fibre is to excite contraction is universally admitted, it is equally well-known to those of even the most limited experience in surgery that the uniform effect of steady, smooth pressure on muscles in all parts of the body is not to stimulate contractility, but to prevent all action. Constantly, have the older members of the profession availed themselves of this property of pressure in the use of the roller bandage in the treatment of fractures of the extremities; and if it is in less request in this form by their juniors, it is not because of a want of confidence in the influence it exerts, but because of positive objections to it and their ability to treat successfully such injuries with apparatus that is less troublesome. So fully pursuaded of its controlling power in this particular have been eminent members of the profession, that they have believed it practicable to treat with good results fractures of the long bone with bandage alone; dispensing altogether with the use of splints. Their views may have been extreme, and cures not creditable to surgery may sometimes have resulted, when attempts to carry them into practice have been made, but the law of non-action or impaired contractility under pressure is well understood and generally received. It is as legitimately applicable to the condition under consideration as to any other, and in the event of immediate hæmorrhage, should time, that ought to be spent in the employment of manipulations through the abdominal walls, the use of the cold dash, the introduction of the hand, and possibly, ice into the uterus; should this time, so precious, be consumed in the application of a binder—the true effect of which is rather to prevent than to promote contraction

none can doubt the victim would be likely to succumb under continued bleeding.

But this, the immediate, is not the most usual form in which we meet with hæmorrhage subsequent to the delivery of the placenta. Generally the involuting uterus follows down upon the secundines, contracting apparently well. But from some cause, its tonicity ceasing, it behaves badly and again expands, enlarging the space and opening the sinuses and mouths of the vessels in the locality of recent placental attachment. To prevent this expansion and the resulting hæmorrhage the binder is deemed of great efficiency—furnishing, in the language of the accomplished Dr. Charles Meigs, "a point d'apui for the uterine fundus." Whilst it materially interferes with the manual grasp of the uterus through the abdominal parietes (a procedure often most useful) and other attentions of value, it can at best be but a very feeble resistant of expansion. Too repeatedly was it my fortune, when in the habit of applying it, under the influence of the precepts of my pupilage, to witness the steady dilatation of the organ regardless of its compressing and resisting agency, for me to attach importance to its preventive power. A like experience, as to the fact of the occurrence, has probably been shared by all those whose practice has been to apply it. Such was doubtless the result of the observation of that accomplished scholar and experienced gentleman, Dr. James Burns, who, though its advocate and eulogist, has the frankness to remark, when speaking of friction and pressure as means calculated to excite and maintain contraction and thereby control hæmorrhage, that he fears the latter, that is, pressure, is not likely to effectually impede distension. Futile, indeed, must be its influence of passive action when agencies so much more active and powerful often prove totally ineffectual. Truly so in an extreme degree must

it appear to all practitioners who after having turned out accumulated clots and secured temporary contraction with ice or by the irritation of the inner surface with the hand, have grasped the globular ball through the abdominal walls and felt it expand to frightful proportions, notwithstanding their most determined efforts of resistance. Without influence in promoting contraction, but in reality being antagonistic of it, it is of so little force as a resistant of expansion as to be, on a fair balancing of its merits, entirely unworthy the trouble of adjustment.

But further; it is not only without value, direct or indirect, in the prevention or control of hæmorrhage, but its action, so far as exerted, is well calculated to produce the calamity. One of the discomforts and embarrassments of the latter months of pregnancy is an œdematous condition of the lower extremities. The veins of these members sometimes become so much distended as to yield in the texture of their walls and pour forth a torrent of blood. This distension and hæmorrhage results from the pressure of the gravid uterus, on the vena cava and iliac veins, producing obstruction of the circulation through those vessels. The organ disburthened of its contents at the conclusion of the third stage of labor, but still of large dimensions, being in volume of the size of an infant's head and weighing two or three pounds, is, should the bandage be applied, forcibly pressed down and back upon these very vessels. There can be but one result, certain and uniform: an impediment to the circulation. The obstruction is the same in kind as that produced by the gravid organ. But there is now in the uterus a point offering less resistance than the walls of the veins, and the impeded current is not so likely to distend the calibre and rend the walls of the venous vessels of the extremities below, as it is to pass into the sinusus vessels and spongy substance of the uterus and

find an easy outlet through the surface recently denuded by the detachment of the placenta.

Resistance is an important and often controling element or factor in determining the direction taken by fluids in motion as well as solids. The resistance at the point of the late placental attachment is slight; particularly so is it, should the uterus lapse into a state of inertia and threaten to expand again. Not at all unreasonable, then, I apprehend, can be considered the deduction that hæmorrhage, from obstructed circulation thus produced, does occur, sustaining the opinion that the agent effects the very evil it is designed to prevent.

Another argument in favor of the use of the binder is founded in the belief that it is unsafe to risk the abdominal walls and viscera without support and pressure. These parts having been accustomed for months to the pressure of the gravid uterus, it is deemed necessary to supply its place in some way artificially else hazardous transposition of organs will take place; faintness and syncope occur, and the patient will ultimately, on getting up, be annoyed with an ill-shaped figure; in the homely language of Dr. Churchill, she will have a "pendulous belly." Superadded to these reasons, which seemed to be unanimously concurred in by the authors of the two countries, is the additional suggestion of a Philadelphia writer, whose name we all usually pronounce in language of marked respect, that "it is doubtless a laudable precaution to bind up the weakened and exhausted cavity.'

Transposing these several arguments, founded as I believe in needless fear and apprehension, and taking them up in the inverse order in which they are stated, I propose disposing of the last two in very few words.

In regard to the "laudable precaution" suggested by Dr. Meigs, I plead ignorance of all knowledge of "weakened and exhausted cavities." I know not what they

are, never having seen or dealt with any or read a description of one. "Weakness and exhaustion" are not properties belonging in any manner to cavities, and hence it would be a work of supererogation to discuss them in this relation. Hardly more elaborate is it necessary to be in considering the conservative influence of the binder in the prevention of an ill-shaped person. It need only be remarked that outward support may give form and comeliness to the figure during its application; but as permanent restoration can alone result from a vital property, contractility, inherent in the muscular and other tissues that have been relaxed and elongated during the period of gestation, it is only upon the development and operation of this property, which usually occurs in good time, that rational hopes of restored symmetry can be based. Indeed, if the principle of the impairment of contractility under smooth pressure be correct, and of it there can be no question, the bandage must be antagonistic of speedy restoration.

But without further remark on these points, I proceed to the examination of the argument founded in the more plausible but equally fallacious apprehensions of unsafe displacement of viscera and of syncope without hæmorrhage, the latter being an incident of occasional occurrence and even exciting anxiety, if not alarm. Probably in no particular is woman's child-bearing destiny more wisely or more beautifully provided for by the great Architect of her frame, than in the provision made for the easy and safe ascent of the gravid uterus from its snug little pelvic chamber into the more capacious apartment of the abdomen. Rising slowly but steadily from the small bony cavity so well adapted to its safety and requirements during all its years of diminutive proportions, it gently displaces without material disturbance or serious shock the soft and yielding bodies of superincum-

bent organs, thus making, during its nascent state from embryotic development, adequate accommodation for its increased and increasing dimensions up to the period of full term. The hour of travail having arrived, instinct with life and apparently endowed with the higher attribute of reason, it institutes and successfully carries forward a series of physiologico-mechanical processes, intricate and complex, obedient to the laws of anatomical mechanism that eventuate in the expulsion from its cavity of the fruits of conception, long nurtured and fully fitted for independent existence. Having accomplished its task of gestation and delivery, and no longer requiring roomy space, it works out self-condensation and recedes to its wonted home, allowing the lately incommoded but accommodating structures above to return gently and silently to their former positions.

These phenomena of growth and diminution; of ascent and descent; of advance and retreat; of friendly intrusion and accommodating displacement, occur and recur with an average interval of twenty-four months during the thirty years of woman's child-bearing capabilities. The occupancy of space amid the abdominal viscera *is and was designed to be temporary and is without alternative* in an organization devised and perfected by a Creator, whose prescience foresaw and whose power commanded in this matter as in all things else means of appropriateness and adaptability adequate to and commensurate with the ends designed to be effected. Can it be for a moment supposed, that the adaptation of means to ends could have been so imperfect and defective, or that the Creator, in working out the great problem of reproduction and of replenishing the earth, could have designed, in his construction of woman's frame, that the ordinary, oft-recurring and almost universal incident of the retrocession of the recently-delivered and now di-

minishing uterus from the only position in which it could have successfully performed its preördained function of gestation, should generally be attended with such shock to the nervous system, as would imperil life, unless an artificial agent, such as pressure from a bandage, should be invoked to take the place of relations that were natural and in keeping with the harmonies of the well-planned scheme of utero-pregnancy? Such want of foresight or such disregard of the well-being of his creatures cannot be found in the vast domain of the handiwork of the Almighty. Dismissing, however, this line of argument, that may be considered that of the Bible-student, and pursuing the investigation in the spirit of scientific inquiry and deduction, it has not escaped me that those who use the binder as a compressor of the vessels and viscera of the abdomen to prevent faintness, predicate its necessity upon the opinion that there is a striking analogy in the cause producing syncope after delivery in the parturient woman, and the cause operating in the production of a like condition in one from whom a large quantity of fluid has been drawn off in ascites. Does this parallelism in fact exist? The state of the patient on whom paracentesis abdominis is performed is pathological, and the sudden withdrawal of the pent-up fluid removes the *entire* abnormal compression to which the abdominal and pelvic veins may have been subjected, allowing the blood to gravitate from the direction of the heart. The application of that degree of external pressure that will prevent this gravitation will ward off syncope or faintness. But is the extrusion of the contents of the gravid uterus attended with the sudden removal of pressure to the extent of allowing similar gravitation? It surely is not. The recently delivered uterus weighs from two to three pounds, and under the operation of one of the laws of parturition and its sequences, recedes to a point where

its weight is more immediately felt by the cava and pelvic veins than during the period of gestation. This weight operating at a point of facile compression and in its entirety, the organ being no longer drawn forward by the round ligaments, which are greatly relaxed, would seem to be amply sufficient to prevent any retrograde movement of the venous circulation and of faintness as a consequent effect thereof.

It is true that syncope without hæmorrhage does occasionally supervene shortly after labor as well as during its progress. I, in common probably with all who are familiar with the lying-in chamber, have met with numerous instances of it, but attribute it to an entirely different cause than a want of pressuse or a retrograde movement of the blood in the ascending cava, and believe it generally amenable to an entirely different treatment than the bandage.

It is the hard fate of woman—unblessed by the greatly ameliorating influence of that greatest and best of the gifts of the laboratory of the nineteenth century, chloroform—to give birth to her offspring in much agony. Who that has stood at his post as obstetrician, through the long and weary hours of her travail, and witnessed the efforts, the pain, the writhings, the supreme sufferings of the parturient, probably rendered delicate, frail, and feeble by the usages of society in civilized life, can be surprised that the body should stagger and the great life functions well-nigh succumb? Well may a nervous system so violently wrought upon by the oft-recurring and long-continued throes of agonizing labor be so shocked as to be temporarily overwhelmed, and for a while present the general indications of collapse in a pallid surface, whispering voice, feeble respiration, jaded muscle, faltering circulation; indeed all the symptoms of profound prostration and utter helplessness. Syncope

does sometimes occur and the wonder is that we do not more frequently encounter it. But it is dependent on nervous exhaustion and muscular prostration, and a prompt response and speedy rally may be usually secured from rest and the administration of brandy and laudanum, or other stimuli; probably just the agents used by those gentlemen who detail cases in the books to illustrate the value of the binder, but in the narration of which they have the candor and ingenuousness to say they also exhibited such restoratives as were at hand. In this it is presumable they did, so far as the administration of stimulants is concerned, just what all other practitioners do under like circumstances; for it would tax credulity too far to believe that any accoucheur, however high value he may place on the bandage, would be so far forgetful of the rich offerings of sound and rational therapeutics or so regardless of the safety of the precious charge committed to his care, as to attempt the control and management of syncope *with it alone*, could he command stimulants of any kind. Used conjointly, binder and stimuli, the former has doubtless often ceived a large share of credit that may have justly belonged to the latter.

In conclusion, discrediting, as I do, the utility of the binder for all the purposes for which it has been so generally recommended and under all the circumstances of its supposed value, and believing it hurtful in some particulars already suggested, I feel that I should fail of my duty did I not go further and avow my conviction that it is a most mischievous agent in unnecessarily compressing and displacing important organs and materially interfering with the proper and normal performance of their functions in narrowing the lower part of the chest of its fair proportions and preventing the free and full expansion of the lungs; in compressing the abdomen and stilling the

peristaltic action of the bowels and subjecting the patient to the inevitable dose of oil on the third day, and possibly subsequent medication that might not otherwise prove necessary.

Its most baneful influence, however, is felt in its direct action in oversetting and prolapsing the very organ it is designed to aid and protect from injury. Version and prolapsus of the uterus are maladies of most frequent occurrence, and with their complications, local and constitutional, share largely of the time, attention and remedial resources of the profession. The causes operating in their production are numerous and diverse, but there is a marked concurrence of opinion among observers and writers in both this country and in England, that a very large proportion of cases calling for relief follow quickly on the heel of parturition. One author of good repute goes so far as to declare in emphatic terms his belief that nineteen cases in twenty supervene on recent delivery. An explanation of the apt liability to these misfortunes in the first few weeks immediately subsequent to that important event is readily found in a consideration of the then existing anatomical condition and relations of the uterus and its appendages; in its preternatural weight for some time after parturition; in the delicacy of its suspensory attachments and the changes these attachments have undergone during labor; in the relaxation of the recto-vaginal tissue; in the enormous distension of the vagina in its transverse diameter, and in the entire withdrawal t the conclusion of the parturient effort of all the support afforded at other times by the round ligaments. These stays having elongated during the months of pregnancy from two and a half to about five inches in length, lie, for a period more or less indefinite, subsequent to accouchment, coiled on themselves, offering no resistance whatever to version or descent.

So susceptible is the involuting organ to displacement that observers have attributed instances of it to the action of the diaphragm under a severe cough; to the effort of sneezing and vomiting; to straining at stool and even to its gravity when patients have been imprudent in getting on their feet in the space of eight or ten days after delivery. Yet, strange as it may appear, to those who have not hitherto bestowed thought on the subject, the ink with which caution as to these causes of dislocation are iterated and reiterated by the advocates of the bandage, does not have time to dry in their text before they proceed to enjoin most earnestly that an appliance shall be adjusted about and above the uterus, the force of which may be equivalent of the entire weight of the organ with possibly several pounds superadded, the effect of which, under the soundest laws of physical science, is to drive it downward and backward. Difficult, I apprehend, would it be to conceive of any appliance devised by the ingenuity of man that would have been better calculated to produce prolapsion and retro-version. Its effect is direct and positive and its action to the extent it may be commanded is to drive the body of the uterus into the hollow of the sacrum and in the direction of the outlet of the vagina. These displacements are often, if neglected, but the forerunners of engorgements, inflammations, indurations, hypertrophies and ulcerations with their attendant symptoms and wretched sequels. Who then can measure, who can estimate the untold evils of the binder in the production of uterine dislocations? What a long catalogue of pain and suffering, local and general, is justly chargeable to its baneful influence! What an appalling amount of diseased structure, with its sad train of horrors in the scope of its sympathetic reactions through the nervous system on neighboring and distant organs is produced by it!

There is scarce an organ in the body that does not participate in the wreck. The heart, the stomach, the liver, the bowels, the brain, are all dragged into the circle of disease, and share in the common ruin. Under its fell influence youth merges rapidly into age; a life of promised sunshine and happiness becomes one of gloom, suffering and sorrow; the eye that sparkled with its loving witchery grows dull; the cheek that bloomed with roseate hue pales under anæmia; the form that was lovely and of peerless beauty emaciates to the skeleton; the temper that was of angelic sweetness corruscates in the fires of discontent and uncontrolable irascibility; the mind that sparkled in the richness of its treasures fades into twilight weakness; hopes and joys that danced in the perspective of the coming years wither and perish; home is made desolate and the grave claims its tenant. This is no fancy picture, but a truthful portraiture of the sad changes wrought on the health, the prospects and the happiness of woman by uterine disease. These maladies are rife all over this and some other countries, and if any portion of them can be fairly attributed to the use of an agent that is *not necessary* from any stand point from which it can be viewed, but *detrimental* in all the phases of its influence, then, I trust, the day is not distant when the binder will be universally abandoned and find its place in the records of obstetrics *among the things that were.*

ART II.—INSTRUMENTATION IN LITHOTOMY AND LITHOTRIPSY. With Illustrations. By PROF. JAMES M. HOLLOWAY, M.D., Associate Editor.

The labors of surgeons, during the last decade and a half, to simplify the means of diagnosis and the treatment of stone in the bladder have been successful. Since the days of Celsus, both lithotomy and lithotripsy have been

regarded as justifiable operations; and the genius of invention has been persistently taxed to devise improved methods by which the presence of the stone shall first be determined positively and afterward be removed with the smallest amount of injury to the bladder and adjacent parts, and with the least danger to life. A careful reading of the lectures of Sir William Fergusson, before the Royal College of Surgeons, in England, in 1865, and also of the lectures of Sir Henry Thompson, at the University College Hospital, in 1868, will show clearly the progress of surgery in this direction within the length of time named above. The result of this progress has been to so simplify both the operations of lithotomy and lithotripsy as to authorize the less experienced practitioner of medicine and surgery in attempting their performance. The anatomy of the parts concerned has long been well known; there has been no improvement in that necessary particular; neither has the chemist thrown much additional light in later years upon the composition of the various kinds of calculi, nor upon the various influences tending to their formation. The chemist well-nigh completed his labors in these particulars many years ago. It remained, then, for surgeons, already well posted in their anatomy, and fully instructed by the chemist, to study diagnosis and treatment. And this study on their part has enabled them to simplify both.

The relations between the two operations employed for the extraction of calculi have been very materially changed. Formerly, lithotomy was the rule in the majority of cases and lithotripsy the exception. Now it seems likely that this rule is to be reversed. For, relatively speaking, stone is more common in adults than amongst children, and, with few exceptions, lithotripsy is the safest method for this class of cases. In the other class, viz: children, lithotomy is at present recognized as

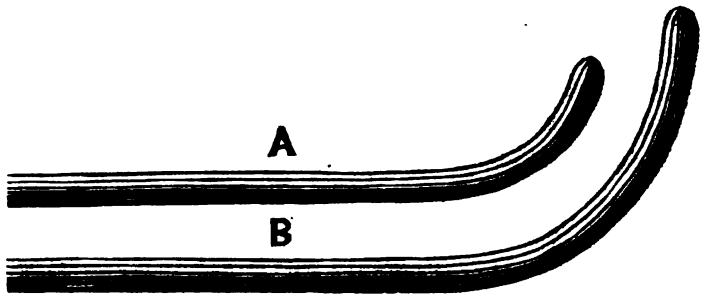
the best plan because of the small size of the urethra, the high position, and irritability of the bladder, and the small ratio of mortality. For the convenience of the reader the following table has been prepared, showing at a glance, the classes of cases to which these two operations are applicable:

LITHOTOMY (Cutting).	LITHOTRIPSY (Crushing).
All Cases under 14 or 15 years of age (Children).	All Cases above 15 years of age in which—
Cases above 15 years of age, in which there is—	1. Oxalate-of-lime stone is less than one inch in diameter.
1. Oxalate-of-lime calculus over one inch in diameter (very rare).	2. Uric acid and phosphatic calculi are less than two inches in diameter.
2. Uric acid and phosphatic calculi over two inches in diameter.	3. Hypertrophy of the prostate exists.
3. A very bad stricture of the urethra.	4. The bladder is unable, by reason of partial or complete paralysis, to expel the fragments.
4. A very highly-diseased condition of the bladder.	

It is proposed to devote the larger part of this contribution to the description of the few instruments now necessary for the detection of stone and for its extraction either by the cutting or the crushing process.

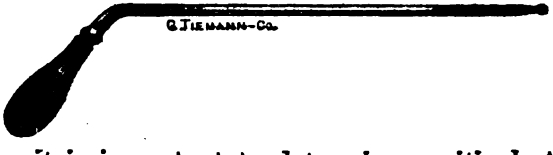
The rational symptoms of chronic prostatitis resemble so nearly those of stone in the bladder that it becomes necessary always to use the sound in order to determine positively the presence of a stone. With this simple and comparatively harmless instrument the diagnosis can be made in most cases.

Formerly many cases of stone were not detected because of the imperfect shape of the sound then employed. Now this instrument is so constructed that its beak can be made to traverse, with ease, the whole mucus surface of the bladder even after the urine has been discharged. The following diagram shows the difference in the shape of the instrument used then and now. The curves are exact and of full size:



By examining the above diagrams it will be observed that B, the sound formerly used, possesses a double curve, one for the shaft and the other for the beak. The latter curve describes very nearly the arc of a circle and the beak is not less than 3½ inches in length. While A, the sound now in common use, has only one curve; the shaft is perfectly straight; so also is the beak; the curve is very abrupt and brings the two parts named nearly at right angles with each other. While the old sound can be introduced into the bladder with more ease than the new one, it is much more unwieldy and cannot possibly be rotated so as to bring its beak in contact with the whole of the mucus surface of the bladder.

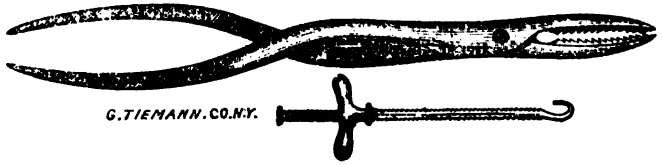
For the female a straight sound is employed, such as is seen below. This instrument is constructed of different sizes corresponding to the numbers of catheters from 5 to 10. Upon the upper surface it is deeply grooved, so as to serve the double purpose of a sound and a director for the knife when it has been determined to cut through the urethra in order to enlarge it.



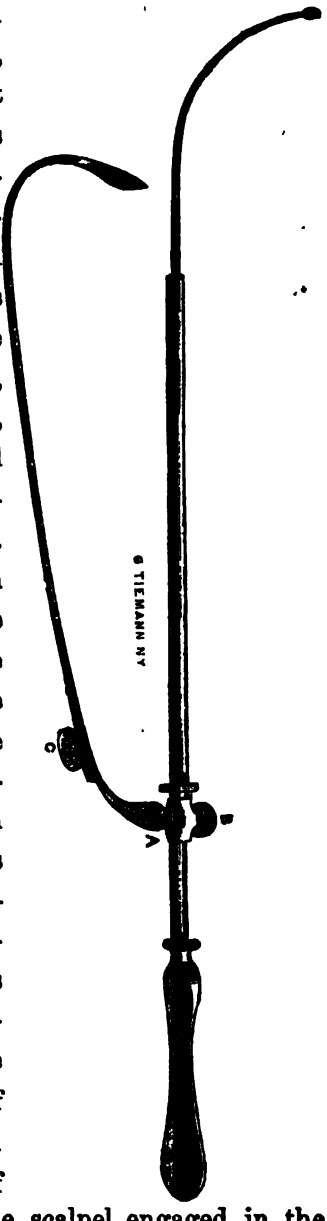
When it is important to determine positively the diameters of the stone before deciding upon the method to be employed for its extraction, and this cannot be done

by the sound, a lithotrite of proper size may be introduced, and the stone being engaged between its blades in different directions, the scale upon its shaft will indicate the size.

In lithotomy, by either the lateral, median, or mediobilateral methods, the lateral being most common, the only instruments necessary are a grooved staff, a scalpel, and the forceps. The grooved staff is similar in shape to the sound, having a deep groove upon its under surface, which extends very near to the end of the beak. An ordinary scalpel, the point of which is abruptly curved upon its cutting surface is the best. A few surgeons still use the *lithotome cache* and others substitute a probe-pointed bistoury for the scalpel after the urethra has been reached and penetrated. The forceps employed are of different sizes and shapes, the one represented in the diagram below being a fair sample. It will be seen that the handles are much longer than the blades, the latter having their adjacent surfaces covered with large beard-shaped teeth in order to fix the stone more securely during the efforts made for its extraction:



Prof. Nathan R. Smith, of Baltimore, Md., has constructed an instrument for the removal of stone by cutting, a tolerably fair representation of which is given below. With this instrument, it is claimed, the operator finds no difficulty in reaching the membranous portion of the urethra after the staff has been introduced into the bladder. It was employed successfully in six cases by the late Prof. A. E. Peticolas, of Richmond, Va., who valued it highly because of the great facility and unerring certainty attending its use.



C represents a lever with spear-shaped knife attached, having a hinge movement at A. This part of the apparatus is fastened to the staff at B before or after it has been introduced. The staff being fixed by an assistant, the knife is presented to that part of the perineum to be incised. Then, by firm pressure upon the lever, the knife is thrust inward until it reaches with unerring certainty the groove in the staff. An ordinary scalpel is then guided by a groove upon the back and under surface of the knife until it reaches the groove in the staff, whereupon the lever is elevated and the remainder of the cutting through the prostate and bladder is completed by the scalpel.—With this instrument the operation of lithotomy resolves itself into a series of mechanical movements which require little or no skill on the part of the operator, further than in the introduction of the staff and in keeping the point of the scalpel engaged in the groove.

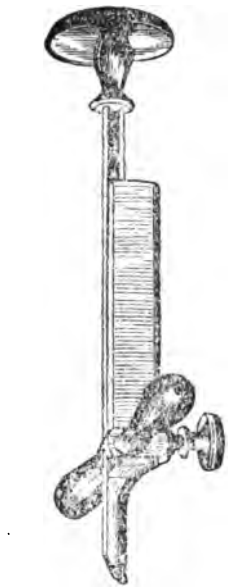
Formerly some of the most important objections to the extraction of stone by crushing was the clumsiness of the instruments, rendering their introduction and their manipulation difficult. The blades, furthermore, were so constructed as to endanger the integrity of the mucus membrane.

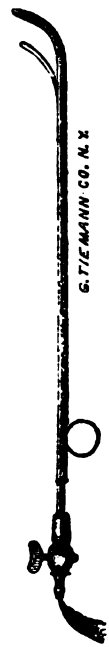
The instruments now employed for the crushing of a stone in the bladder are constructed with a view to their easy introduction and to the infliction of the least amount of pain and injury. When skillfully manipulated, the integrity of all the soft parts is preserved. This was not the case when the straight instrument of Civiale, and subsequently, the curved lithotrite of Sir B. Brodie were used. The latter instrument was so clumsy that the pain caused by its retention in the bladder for five or ten minutes, the length of time usually required for crushing the stone, was followed by serious local and general disturbance. Now it is not deemed prudent to continue the operation of crushing at a seance longer than two minutes. An instrument that does not work smoothly enough to crush a stone of ordinary size in that length of time should not be used. The following diagrams furnish very accurate representations of the lithotrites now in use. They are of different sizes, adapted to the varying calibre of the urethra, and are so arranged as to combine strength, lightness, and free movement. The lithotrite to be used in the majority of cases has flat blades, which do not exactly meet each other. The male and female blades are roughened on their opposing surfaces, but the edges are smooth and rounded; so that the mucous membrane cannot be pinched during the crushing of the stone. When the instrument has been introduced the male blade is made to recede from the female by a sliding movement until the stone is embraced by them. Then, by the simple turning of a tap upon the shaft, the sliding movement is converted into a

screwing one, and the male blade is made to gradually approach the female until the stone crumbles under the pressure.

In the other form of lithotrite, employed only when the stone is too dense to be crushed by the one just described, which condition seldom obtains, the female blade when closed fits accurately in the opening. With this instrument there is some danger of pinching the mucus membrane, but usually some fragments of stone engage between the blades in sufficient quantities to prevent this.

This latter instrument usually has a rack-and-pinion attachment, by which an immense force can be applied when necessary to crush hard calculi. Formerly this was accomplished by the rough and painful procedure of striking the extremity of the male blade with a small hammer.





It is not good practice to attempt to bring away the fragments immediately after the crushing is accomplished. By allowing them to remain until they are washed away during micturition they become water-worn, their sharp edges being rounded off. Should, however, some of the small fragments fail to pass after a reasonable length of time, by reason of partial or complete paralysis of the bladder, the larger catheter of Mr. Clover, to which is attached a powerful india-rubber bulb, should be introduced and the fragments sucked up. This is sometimes the most painful part of the whole operation and must be conducted with great care.

The rule, now well established, is to crush the stone completely in order that the fragments may be very small. Consequently, there is less danger than formerly of the impaction of particles in the urethral canal. Should this occur they may be removed without much difficulty by the aid of one or the other of the instruments represented by the following diagrams. The first is a pair of delicate forceps, with scissor motion. It must be introduced with the blades closed until the fragment is reached; then by a very slight separation of the handles the points of the blades are widely expanded and the fragment is engaged and carefully extracted.

The second is a more complicated instrument and may be employed for removing fragments from the bladder as well as from the urethra, though the former procedure could not be unattended with danger to the mucus lining. Such instruments have either two or three shallow cups attached to the extremities of an equal number of steel springs. The one depicted in the diagram has only two of these cups. The springs are concealed in a canula, while the cups, when closed together, form a bulb at the extremity of the canula, in order to render its introduction easy. Thus arranged, the instrument is intro-

duced into the canal and the fragment is touched. Then by grasping the canula, the cups are pushed forward by pressure upon the handle of the shaft. The springs escaping, separate the cups, and by a slight movement forward are made to seize the fragment, when it can be extracted without pain or damage to the urethra.

In the foregoing description of the several instruments necessary for the performance of lithotomy and lithotripsy the writer has omitted many of the details of each operation.—These can be found in almost every recent work on surgery. The principle object of the article, as said before, is to present to the general practitioner well executed diagrams of the most approved instruments in use, so that when needed they can be obtained without the usual delay and mistakes experienced in purchasing by order.

ART. III.—INTERESTING FACTS CONNECTED WITH CHOLERA. By J. P. CHESNEY, M.D., New Market, Platte county, Mo.

Writing articles on cholera happen very much like the dread disease itself—epidemically; and like it they usually happen in the summer-time, and originate in the cities and larger towns. The following lines I intend as an exception to the rule in some points; that is, it will be one of those sporadic cases which we find happening in connection with everything pertaining to medicine.

I am not going to recount my own exploits in subduing the fell destroyer with a remedy of my own discovery, nor expatiate upon the subtle agents which "touch the blood corruptibly;" as, fortunately for myself and the people whom I serve, I have never encountered this "monster with hideous mien, which revels in death, yet walks unseen." My purpose is simply to give an "old man's narrative" of his reminiscences of cholera as it happened in his vicinity, in the ever-memorable year 1832, the year in which it leaped the broad barrier of the Atlantic ocean and spread dismay and death in so many bright spots in our then happy country.

To use a term very fashionable among a certain class of writers of the present day, I will say that "my story opens" at the town of Springfield, in Washington county, Ky., a pleasant village, embowered in the heart of a healthy and beautiful district in the interior of the State, far removed from any of the highways of travel and commerce, which are so often the avenues by which pestilence gains access to our families, and also equally distant from those seething pools of social, political, and physical corruption—our cities.

It was in the month of July, in the year before mentioned, that a negro man belonging to the village, a mem-

ber of the family of a Mr. Wade, I believe, was sent on an errand to the mouth of Salt river, distant perhaps fifty or sixty miles from his home. Whilst at that point, he had occasion to visit on board a steamboat which lay at the point, the captain of which was then a corpse, having died a few hours previous with cholera. The negro left for his home; the trip was made on horseback; arriving in the early part of the night, he was taken sick with the cholera and died before day. His wife and several members of the white family to whom he belonged, also died in a few hours. The Wade family had relatives by the name of McHenry living four miles in the country, some of whom, either black or white, were visiting at Wade's at the moment of the sickness and death of the negro man. They fled to their home at once and coincidently with the death of the white members of the Wade family the McHenrys also were attacked and died.

The morning following the death of the negro man first spoken of, his body had been placed in the cellar or basement of the house and there happened a very heavy rain, submerging the cellar and floating the dead body, the water flowing out again and down the south side of the street. In a very few hours the families residing in the houses on that side of the street, were attacked with cholera and many of them died. The pestilence quickly spread to the adjacent neighborhoods, leaving desolation and death in its wake. Four hundred perished in the village and its environs, the people being so terrified that they burned houses and other property in their mad attempts to stay the progress of the merciless scourge.

An affecting incident was related of an old man who, from the first of the outbreak, had, with cart and horse, worked faithfully in removing the dead from their homes to the cemetery. He too was at last stricken with the bolt of destruction and his body consigned to the abode

of the dead; but his faithful horse ceased not his accustomed work, but, without a hand to guide him, made his regular trips from the village to the graveyard and back again so long as his services were in quest. Many other incidents were related which interested me much, but it has been four or five years since I had the stories, and I have forgotten them. The incidents herein mentioned are substantially true.

Now the reader may ask, what of all this? How is the story, as related, to benefit science? What light does it give us in regard to cholera? I would answer, that if the observations were correct, that it proves conclusively that cholera is infectious (that is, directly communicable from one person to another); that it is not always conveyed from place to place by the medium of the atmosphere alone; but that one person may convey it directly to another through an intervening distance of many miles. We should, therefore, teach those who depend upon us for instruction in such matters to shun the cholera patient as they would the most virulent case of small-pox, and to eschew as fearfully dangerous the very prevalent notion that cholera is not "catching."

ART. IV.—THE IMPROVED UTERINE SPECULUM OF DR. BRYANT. By GEO. SYNG BRYANT, M.D., Lexington, Kentucky.

The principle upon which this speculum acts is identical with that of Dr. Sims' instrument. Both elevate the perineum, but Sims' speculum requires to be held in position by the aid of an assistant, while the speculum herein described, retains itself perfectly for any length of time, without any assistant. Indeed, this instrument is now so perfect in its construction, that it cannot slip after being adjusted to the patient.

The manner of using this speculum is as follow: The strap attached to the end of the lever or handle, is

either to be carried around the waist or over the shoulder of the patient, and then tied tightly. The pad upon which the button rests is to be placed upon the sacrum, and the blade, or speculum proper, is to be introduced into the vagina and then attached to the lever. The screw which rests upon the arm of the blade elevates or depresses the distal end of the blade, as may be desired. The screw to which is attached the button (that rests upon the pad on the sacrum) regulates the elevation of the perineum and the posterior wall of the vagina.

The pad which is to be placed upon the sacrum should be made of thin deal board, and it should be well padded on the under surface, and thickest on the anterior edge, so as to compensate for the rounded turn of the buttock. By this arrangement of the pad, a firm and level position is secured. The pad should be six inches long by two and a half or three inches wide, and a loop should be attached to the upper side of the pad, so that it may be firmly secured to the button when the speculum is adjusted to the patient. By the use of the pad all unpleasant pressure of the button upon the sacrum is avoided. Here is an illustration of this improved instrument.

This speculum is easily adjusted to any sized patient, and its introduction is painless. The lateral semiprone, or knee and elbow position are equally favorable to the use of this instrument.

The cut here given well represents the instrument, and is about one-fourth its size.

ECLECTIC DEPARTMENT.

"Carpere et Colligere."

ART. I.—CONCERNING THE ACTION OF OPIUM ON THE UTERUS, AND PARTICULARLY AS A PARTURIENT AGENT.

By P. C. BARKER, M.D., Morristown, N. J.

"Parturition consists in the expulsion of the fœtus and its appendages from the cavity of the uterus, and ends in the separation of the child and the mother." (Churchill). It is accomplished by means ot non-striated contractile fibres, which are practically muscular, and constitute what is generally termed "the muscular coat of the uterus." These fibres are arranged in longitudinal oblique and (circular) transverse directions. The first two predominate in the body, and the latter in the cervix, and particularly in the "os uteri externum."

Before the expulsive contractions commence which terminate the process, these circular fibres should relax, and the "os" become widely dilated; but irregular contractions of the different sets of fibres, or contractions of the circular alone (constituting false pains) or rigidity of the "os uteri," due to tonic contraction of its circular fibres, often prevent this physiological dilatation, and prove the source of great distress to the patient and annoyance to the obstetrician.

It was in cases of this character that I discovered in opium a valuable parturient agent. I will narrate a few cases, which will illustrate how it became manifest to me.

Case I.—Mrs. H., about twenty-five, a strong and healty woman, primipara, was taken in labor two P. M., July 15, 1862. Saw her soon after. Pains frequent and of moderate severity; os dilated sufficiently to admit the point of the index-finger. Head presenting in first position. Left her for half an hour, and upon returning found her condition unchanged. Visited her at intervals until late in the evening, when, no progress having been made, ordered antimon, et potass.-tart, gr. $\frac{1}{8}$, every half hour. Went home, leaving directions that I should be sent for if any change occurred. Messenger came for me about two A. M., 16th. No further dilatation. She complained very much of the severity of the pains. Tartar

emetic, gr. ½, every half hour. No improvement resulting, and nausea being constant, it was discontinued in the morning, and a stream of warm water was thrown upon the os, by means of a Davidson's syringe, for half an hour. This was repeated three times during the morning.

Two P. M. Still no dilatation. Patient a little feverish, and complaining of being very tired and sleepy. Ordered morph.-sulph., gr ¼th and left her to get a little sleep, while I went to attend to other engagements. Returning about an hour after, I found mother and child comfortably asleep side by side. About half an hour after taking the morphine she had a hard expulsive pain, and before any one could leave the house the child was born. The pains had not changed in character until just before the termination of the labor, nor had she been asleep.

Case II.—Mrs. O., thirty-five, multipara. Previous confinements easy. Taken in labor with her fourth child, November, 1863. Pains of same character as in Case I, for sixteen hours, producing little dilatation. At one A. M., gave morph. sulph., gr. ⅓, hoping to quiet the pains. Left for home, a short distance away, and retired at once. Just as I was getting asleep, a messenger came for me in hot haste, stating that the child was born. Hastily dressing, I returned in time to remove the placenta. Less than three-fourths of an hour had elapsed since I quitted the house. She had but one pain, of different character from those which had tormented her so long unavailingly, previous to taking the morphine.

Case III. Mrs. W., about twenty-four, primipara, sent for me early in the evening. Being absent from home, my former partner, Dr. F. D. Lente, of Cold Spring, N. Y., answered the summons; upon my return, I went to relieve the doctor. There was no dilatation, although the pains had been recurring for some time. We gave her morph. sulph., gr. ¼, and went home, giving directions to send for me should any change occur.

On the following day, I learned that about half an hour after our departure she was seized with severe expulsive pains, which terminated the labor before a messenger could be dispatched after me.

It is obvious that morphine was given in these cases, as it is usually given by the profession, if at all, with the intention of obtaining a respite from the pains, in the hope that when they returned they would be more efficient. I was surprised in each case at the result, although

in the first I attributed it to the repeated use of the warm douche, from its recognized power in certain cases of this character. In the succeeding cases I was obliged to look for a different explanation, and at length concluded that the morphine increased the expulsive power of the body of the uterus to a degree sufficient to overcome the circular fibres and connecting tissue of the "os uteri." Further light was thrown upon the subject by the following case:

Case IV.—Mrs. G., twenty-eight, multipara. In labor a number of hours. Os uteri remaining about half dilated, and rigid. Gave morph. sulph., gr. ¼. About half an hour after, while making an examination during a pain, my first and second fingers, being applied to opposite sides of the os, in order that I might observe the effect of the pain upon its hitherto unyielding tissue, I was surprised to feel it easily dilating.*

In this case I suspected that while opium stimulated the fibres in the body of the uterus (longitudinal and oblique), it also relaxed the circular fibres of the os. Further observation, in a large number of cases of varied character, has convinced me that opium, instead of having a general anodyne effect upon the uterus, possesses this special power as a parturient agent. I say general anodyne effect, for while it sometimes quiets uterine contractions (witness its universal use for this purpose), yet it is in those cases in which the circular fibres are called into action alone, or where the longitudinal and oblique fibres contract irregularly—in short, in *false pains*. I am fully persuaded that *opium never did or can arrest a physiological* labor.

I have many times been called to cases in which the pains have returned regularly and with increasing intensity for a number of hours without producing dilatation to any extent, and after giving a full opiate have had the satisfaction of finding a marked improvement after suffic-

*I will add, for the benefit of those interested in the discussion which some time since appeared in the columns of one of our medical journals, concerning the propriety of making forcible attempts to dilate the os with the fingers, that I have for several years practiced it, and think that I have shortened the first stage of labor many times thereby. In cases where the anterior lip has not been fully dilated after expulsive pains began, I have also shortened the second stage by persistently pressing upon it until it recedes beyond the presenting portion of the head, even after it had become œdematous. The *rationale* is quite simple; the tissues being subjected to increased pressure, relax sooner than they otherwise would.

ient time had elapsed for its absorption, the patient having even harder contractions with less distress than before, and the os uteri being speedily dilated.

During the first stage of a physiological labor, I believe that the circular fibres of the os are passively relaxed; and that the active, usually gentle, contraction of the fibres of the body of the uterus serves to overcome the resistance which the tissues of the cervix and os present to dilatation.

Now, if the circular fibres of the os retain their tonicity, or if they contract with those of the body during a pain (and I have felt them contracting in a number of cases), no dilatation can be effected; or at any rate, it will be with great difficulty, and the resulting distress will be greater than when they offer only the minimum amount of resistance.

The cases above narrated and referred to have taught me that opium possesses the power of relaxing the circular fibres, at least of the os, and of stimulating the longitudinal and oblique fibres into active contraction. It is upon these principles that opium is exhibited in dysmenorrhœa, when it is dependent upon spasmodic contractions of the circular fibres; or where it is owing to the presence of "menstrual decidua," clots, etc.

In abortions it is an invaluable remedy, facilitating dilatation, diminishing hæmorrhage, promoting the expulsion of the placenta, and lessening suffering.

Ergot on the other hand, by causing contraction of the circular fibres, retains the placenta, and therefore should rarely be given (in abortion) until after the fœtus and secundines have been expelled.

Placenta prævia.—I have used opium in three cases of placenta prævia, one at the sixth month and two at term, saving the mother in each instance. In another case I attempted to turn, but, having made an erroneous diagnosis as to position, the placenta being planted directly over the os uteri, I introduced the wrong hand, and, failing to get hold of the feet properly so as to bring them down, I detached the (entire) placenta rather than lose time by changing hands. I mistook a R. Occip. Post. for a L. O. Anter. position. The hæmorrhage ceased at once, and the mother subsequently did well.

I think that opium meets two important indications in *placenta prævia*: 1. It facilitates dilatation, thus shortening the period of greatest danger. 2. It promotes the

expulsive power of the uterus. It also serves to lessen hæmorrhage by a special hæmostatic action.

It is an interesting fact that, in one of these cases, when the respiration was reduced to four in the minute by cumulative action of the opium, which had been too frequently repeated by mistake, the uterus expelled the child with one pain, thus illustrating my statement that opium does not possess the power of arresting normal uterine contractions.

Hour-glass Contractions, etc.—While hour-glass, cylindrical, or other irregular tonic contractions of the uterus (particularly those which occur after the expulsion of the fœtus) may be (and doubtless are sometimes) spontaneous, still in my experience they have always seemed to be due to ergot. Since I have learned the special power of opium, as set forth in this paper, I have used it in these cases with invariable success, although some of the most approved obstetric authorities say such use "is objectionable."

I will give the following cases in point:

Case V.—December, 1864. Mrs. McD., aged about thirty-eight. Primipara. Labor progressed steadily until the head had fully distended the perineum. Retrocession followed every pain, and, as they were neither strong nor long, no progress was made. The vulva, too, was well dilated, and I gave f℥iss Squibb's fl. ext. ergot to complete the delivery. Fifteen minutes afterward the peculiar contractions produced by ergot commenced, and the child was soon born. Placing my hands upon the fundus of the uterus (it having been pressed upon by the hand of an assistant while the child was being delivered and the funis tied and severed), I discovered it to be much elongated, reaching above the umbilicus; and, making a vaginal examination, found the placenta to be beyond the reach of my fingers, and, introducing the hand, discovered it so tightly grasped by an hour-glass contraction that I could not remove it. Gave morph.-sulph., gr. $\frac{1}{8}$, noting the time. A little less than half an hour afterward I was awakened (having fallen asleep from great fatigue) by a contraction of the uterus under my hand. The placenta was expelled with considerable impulse, and the uterus contracted down almost entirely below the os pubis (which, by the way, judging by my experience, it seldom does, teachers and text-books to the contrary notwithstanding).

Case VI.—Mrs. S., multipara. A delayed labor de-

pendent upon insufficient pains. Gave ℥ iss ergot. The child being born, I delivered the placenta at once (as I now invariably do after giving ergot). A cylindrical contraction immediately followed, the fundus rising considerably above the umbilicus, in fact almost as high as the ensiform cartilage. The cylinder was about three inches in diameter, firmly and uniformly contracted. An opiate was given, and in due time a permanent globular contraction followed.

Dr. J. D. Trask, in his essay upon "Rupture of the Uterus, published in the American Journal of Medical Sciences, January and April, 1848, gives four cases of rupture of the uterus due to ergot. The following case is given to show how this accident *might* be produced in a diseased or even very powerful uterus, as well as to illustrate the apparently antagonistic effects of ergot and opium upon the gravid uterus.

Case VII.—Mrs. M., multipara, about thirty-five. Previous confinements easy. Present labor not worthy of note until the os was nearly obliterated, a ring only being left, when dilatation was for some unknown reason arrested, and no progress made for an hour. The uterine contractions then becoming inefficient, gave ℥ iss ergot. As soon as the pains peculiar to ergot came on, I made an examination, and found the os less dilated than before, and its fibres contracting with those of the body. Gave gr. ½ morph.-sulph. Within half an hour the pains had become more like those of a "physiological labor," the os uteri relaxed and became dilated, and the expulsion of the child soon followed.

I gave opium in this case, with the expectation that it would produce a relaxation of the circular fibres of the os. It seems to have exerted this power in opposition to ergot as effectually as in the "hour-glass" and other irregular contractions above mentioned.

It may readily be seen that the simultaneous action of the ergot upon the os and body *might* have caused a rupture of the uterus. The contractions produced by ergot are continuous. I have often observed, however, that they have not been general, but have occurred in different sets of fibres successively. Herein lies one great danger of its use. In these, as well as all other irregular contractions of the uterus, I find opium a *prompt and reliable remedy*. In fact I now use it in those cases of delayed

labor dependent on inefficient uterine contractions, instead of ergot.

This property being established, the administration of opium admits of wide application in uterine therapeutics. In dysmenorrhœa, abortion, irregular contractions of the uterus of all kinds, previous, during, and subsequent to labor, and in placenta prævia as an adjuvant to Barnes' dilator, it will be found to be a valuable remedy; more certain in desired action (when given under proper indications) than any other remedy in our profession. Such at least it has been in my hands in quite an extensive obstetric experience.

In dysmenorrhœa, opium is given to quiet the contractions of the circular fibres (when this variety is present). In abortion, it is administered in the hope that the pains are caused by irregular contractions; and, if there is no dilatation (producing a partial separation of the membranes), it will often prove successful. If, on the contrary, the process has progressed so far as to render abortion inevitable, opium promotes it by relaxing the circular fibres of the os. It may appear at first strange to hear such apparently opposites ascribed to a remedy; but there is no inconsistency in the statement. The irregular (colicky) contractions do *not* constitute abortion, but they may produce it; and there is much less risk in a temporarily relaxed os uteri without pain, than in a normal condition of the os without contractions of any kind in the body. In the "irregular contractions" as term (at in cases V, VI, and VII), it acts promptly.

I will state that cases might have been multiplied to a large number illustrating this subject; but the practical value of my paper would not have been enhanced at all, as the cases selected are as well or better marked instances, each of its kind, than any others recorded by me since I commenced my observations seven years ago.—[*Med. Archives.*

ART. II.—ON THE PHILOSOPHY OF COUNTER-IRRITATION AS APPLIED IN PRACTICE. By JOHN G. FRENCH, F.R.C.S., Surgeon to St. James' Infirmary, London.

I do not think that there is anything more easily explained in the remedial art than the *modus operandi* of counter irritation, although I agree with Anstie that the

principle of action is misunderstood, and that therefore erroneous ideas and practice are based upon it.

It is upon the comprehension of the principle alone to which I desire to direct attention, for I must presume that, as a remedy of great efficacy, its claim is as well established as any other. As a general illustration of the subject it may be said that a disease of deep seat and long standing fails to show the least improvement under what are deemed the most favorable circumstances, as of rest, proper diet, comfortable temperature, pure air, agreeable occupation of mind—even, apparently, of good general health.

If, under these circumstances, an injury is inflicted upon the skin, as by a burn (actual cautery), or by caustic potash, we can yet absolutely rely upon the separation of the destroyed skin from the living, and afterward upon the healing process being carried on until cicatrization is complete, I think the explanation is this, namely, that however *reparation* may fail in the original disease, it may still be expected with certainty in the recent injury; and that whatever force and action are comprised in that em w[illegible] be carried on until that reparation is complete, which, in the case I have put, will be for a considerable time. During this time the original morbid action is observed first to diminish, as rendered evident by the diminution of inflammatory product and pain, and by the gradual restoration of structures morbidly altered to a natural condition.

Perhaps the more appropriate term by which all this can be expressed, and which is sought for by Dr. Anstie, is "diversion" instead of "counter-irritation;" at least it has the advantage of being the shorter term. But to alter names is so inconvenient, that I think it far more important to acquire distinct perception of the truth, value and meaning of terms before altering them.

Now I believe that all the measures which are comprised in the term counter-irritation consist in the infliction of an injury, and the beneficial result, when obtained, is effected by the corresponding *diversion caused by the reparative process of that injury*, whatever it may be. So that the point to study is what is the reparative process peculiar to each remedial injury, and then to suit the remedy to the malady.

In the term "remedial injury" everything used as

counter-irritant must be included, not omitting the mildest rubefacient.

When success attends the remedy which I selected as an illustration, I assume that those forces, namely, of reparation, which are employed with energy upon the recent injury, act by direct diversion from the forces which maintained the old disease; that blood vessels there so long distended had become too feeble to contract and regain tone; but now obtain repose and consequent vigor, by the diversion thus made in their favor, and that thus the cure is effected.

If the use of counter-irritation prove unsuccessful, it would argue to a certain extent the want of judgment with which it was prescribed—an argument applicable to remedies generally, for it is certain that if remedies of any description whatever gain general credit, they become unduly prescribed, of which fact, as an illustration, none is more remarkable than venesection, which had become so universally used that laboring men adopted it as a means of preserving health; to use their own language, "always being bled spring and fall" with that object. Now, however, it has been generally abandoned, and would hardly be prescribed by anybody who could not from it confidently expect a very immediate, remarkable, and lasting benefit. It is no doubt just as good a remedy as ever, but it is now only prescribed with more care and discrimination.—*Lancet.*

ART. III.—ANÆSTHETICS AND THEIR ADMINISTRATION.

By D. H. GOODWILLIE, M.D., D.D.S.

Mixtures of chloroform, ether, and alcohol have been advised, to avoid danger from the depressing influence on the heart's action.

The unequal rate of evaporating of the fluids is a prominent objection among others.

The best dilution to my mind, *is a well-measured sufficiency of atmospheric air.*

The following general rules are to be observed in administering the anæsthetics:

I. The anæsthetist should confine himself *exclusively* to the administration, and watch closely the symptoms.

II. The indices of danger are—1, the respiration; 2, the pulse; and 3, the countenance.

III. To prevent sickness, do not allow the patient any

solid food for *four hours* or liquid nourishment for *two hours* before the operation. All alcoholic stimulants to be given at least *one half hour* before the anæsthetics are given, as this should be through the system and not in the stomach as one cause of sickness.

IV. Reässure the patient by gentle words and actions. Place your patient in a horizontal position, with the head raised a little, to let the mucus and saliva go down the throat and facilitate the breathing.

V. Loose the clothes and give all the muscles of respiration free play—especially the diaphragm. *Keep the body warm, and thus assist circulation and respiration.*

VI. Avoid the spasms of the epiglottis (manifested by coughing), by the gradual inhalation of the vapor, as this spasm undoubtedly affects the stomach also.

VII. Muscular tremor is always followed by muscular relaxation. In the strong and healthy this change is often quite sudden, so that care must be exercised, when the tremor subsides, to let the patient breathe fresh air freely.

VIII. Cover the patient's eyes with a napkin while recovering from the anæsthetic until sensibility and consciousness fully return, as it keeps them quiet (and they not unfrequently fall into a natural sleep) for applying dressings, etc.

IX. Fresh air is the best stimulant for recovery. Let the patient exhale freely to eliminate the vapor from the system. Give a warm cup of coffee or tea, and if the patient is weak, add a little wine or brandy.

Resuscitation, in cases of danger, is accomplished by the only efficient stimulus, respiration, either natural or artificial.

Draw forward the tongue with your fingers or forceps and keep it there by some means. Use either mouth-to-mouth inflations or by the methods of resuscitation by Dr. Marshall Hall, Sylvester, or Howard. The first is probably well known, and for that reason, and also that I much prefer the others, I will not give it here.

Dr. Sylvester's method is as follows: Draw the tongue forward. Place the patient on a flat surface on his back, slightly inclined from his feet upward, the chest being elevated on an impromptu cushion. Then grasp the arms and press them firmly against the sides of the chest. Next, to immediately raise the arms by the sides of the head and keep them stretched steadily upward and for-

ward for two seconds. Repeat these measures alternately, with long perseverance and unfailing regularity, fifteen times in a minute.

Dr. Benjamin Howard's *Direct Method* of artificial respiration is as follows:

"The patient is laid on the ground upon his back, his arms fully extended backward and outward, a firm roll of clothing being placed beneath the false ribs, so as to throw their anterior margin prominently forward. The tongue being held forward by an assistant, the operator, facing the patient, kneels astride his abdomen and places both his hands so as the balls of the thumbs rest upon the anterior margins of the false ribs, the four fingers falling naturally into four of the lower corresponding intercostal spaces on each side.

"The elbows of the operator being then planted against his sides, he has but to throw himself forward, using his knees as a pivot, and the entire weight of his trunk is brought to bear upon the patient's false ribs. If at the same time the fingers of the operator grasp and squeeze the false ribs toward each other, these combined actions crowd the false ribs upward and inward, producing the greatest possible motion of the diaphragm and displacement of the contents of the pulmonary air-cells.

"The operator then suddenly lets go and returns upon his knees, where both the in-rush of air and the natural elasticity of the ribs at this part cause instant return to their normal position.

"This repeated with proper rhythm and frequency constitutes the entire process.

"The advantages of this direct method over the indirect method of Sylvester and Hall, Dr. H. claims are:

"1. It is more simple.

"2. The degree of compression is felt and can be regulated by the operator.

"3. All the available anatomical means for the displacement of air in the cavity of the chest are completely used.

"4. While the necessary motions are in progress, the tongue may be steadily held out, the limbs and entire body be dried and rubbed without interfering with the operator.

"5. No time is lost in superfluous motions.

"6. It is less fatiguing to the operator.

"7. It is more quickly taught to a bystander."

Galvanism of the phrenic nerves (a most invaluable remedy) may also be used by placing one of the poles (armed with a wet cloth or sponge) over the situation of the phrenic nerve where omo-hyoid and sterno-mastoid cross the other pole along the course of phrenic, or at its periphery over the diaphragm (seventh intercostal space.) The current should be interrupted at regular intervals to imitate the natural respiration.

This can be applied in Dr. Howard's method without interruption. Warmth and friction should always be applied. Warm air to the lungs by a bellows, when possible. When air cannot reach the lungs by the mouth tracheotomy may be performed. Stimulants may be given by the rectum and by the mouth when the patient has recovered so as to swallow.—*N. Y. Med. Jour.*

ART. IV.—REMARKS ON THE THERAPEUTIC VALUE OF BROMIDE OF POTASSIUM. By LUNSFORD P. YANDELL, Jr., M.D., Professor Materia Medica and Clinical Medicine, University of Louisville.

No medicine, at the present time, is probably attracting so much attention as the bromide of potassium. Besides being a very fashionable drug with the profession, it has become a popular favorite, and now occupies the same rank in domestic medicine that the tincture of arnica has so long held in domestic surgery. While a very wide difference of opinion exists among writers and practitioners in regard to its curative powers and its behavior in the human system, the mass of testimony is undoubtedly in its favor. During the past two years my experience with it has been somewhat extensive both in hospitals and private practice; and the result of my observations is, that while it is by no means the panacea which some have deemed it, it is a most valuable medicine, capable of doing great good in many morbid conditions, and nearly destitute of all power for evil when properly administered, even in very large doses. Its failure to produce the effects attributed to it, which is reported in the hands of some practitioners, is due, I suspect, to one of three following causes: either its administration in improper cases; or its being given in insufficient doses; or being given not sufficiently diluted. When the latter error is committed, pain in the stomach and bowels, sometimes severe, is not an uncommon consequence. And

this is easily accounted for when it is remembered that bromide of potassium will blister the tongue when applied to it in substance for a short time. Given internally, in a concentrated form, in large quantities, it might unquestionably develop serious symptoms.

Having become convinced of the harmlessness of this medicine by experiments upon myself, I have not hesitated to administer it freely to others. It is a remarkable fact that, though in drachm doses it has frequently relieved me of sick-headache, and has never failed to overcome the insomnia induced by coffee, excessive mental labor, anxiety, etc., it has often failed to produce any appreciable effect upon me when in health, although taken in large and repeated doses. On one occasion I took in the morning, on an empty stomach, three drachm doses, at intervals of an hour, and during the day swallowed four similar doses, without experieneing vertigo, drowsiness, or any unusual sensation save a fullness of the head and a tendency to stare at objects, which may or may not have been due to the drug. Again, during a forenoon, I took six drachms in divided doses, at intervals of less than an hour, without any sensible effect. And on another occasion I swallowed one hundred and twenty grains at a dose, with the same result. I conclude, therefore, that when this medicine does no good, it is not productive of any mischief. But it is proper to add, that I have had female patients occasionally who charged it with exciting headache, and one lady who said it even produced in her troublesome nervous twitchings. They were probably imaginary, for a young lady, who was suffering intense pain in the back and hips from dysmenorrhea, took, in the course of a single night, an ounce of the bromide, in doses of a drachm every hour, not only without the effect of inducing any nervous symptoms, or sleep, or drowsiness, but without allaying the pain. In this case the remedy proved totally ineffectual for good or evil. Another lady sometimes takes as much as four or six drachms, and occasionally even more, for sick headache, during the day, and while relief is generally obtained, unpleasant symptoms never follow this large medication. This lady buys the bromide by the pound, and for the most part takes it by guess, as she does the carbonate of soda. In several cases I have given drachm doses three times daily for three weeks in succession without any toxical effects. But in others I have

found vertigo, staggering, and an uncontrollable propensity to sleep brought on by forty-grain doses repeated three times a day.

The following brief notice of some of the cases of disease in which I have employed this remedy will illustrate my experience of its capabilities:

A woman with severe locomotor ataxia of six weeks' duration, accompanied by great pain in the head and lower limbs, insomnia, and excessive nervousness, took a scruple of bromide of potassium three times a day for a length of time, and then thirty, forty and sixty grains, three times daily. She got, also, the citrate of iron and strychnia, and such other medicines as the symptoms seemed to demand. The improvement in her condition was marked. She had been unable to walk—under the use of the remedies she was able to resume her domestic duties, to which she had not attended for a month before she entered the hospital. Her improvement, to my mind, was clearly attributable to the use of the bromide.

An aphasiac took twenty grains, then thirty, then forty grains, thrice daily for six weeks, with decided improvement in the power of speech, and with the removal of an intense hemicrania attendant upon the disease. At one period of the treatment this patient took a drachm of the medicine three times a day, but the dose was diminished after a few days because he declared that it made him sleep all the time.

A delicate young printer, who had suffered in childhood from epileptic convulsions, came under my charge, complaining of terrible headache, which occurred with regularity on Tuesday or Friday each week, and sometimes on both days in the same week. They were usually preceded by loss of appetite, swimming in the head, chillines, numbness of extremities, and sometimes by faintness. The attacks generally passed off with severe bilious vomiting and left him much exhausted. Their duration was two days or more. Though many excellent physicians had prescribed for him, none had done him any good. As he had used anti-periodics faithfully, I ordered him scruple doses of the bromide before each meal and sixty-grain doses hourly when the paroxysms were present. He derived benefit at once from the remedy. In a short time his attacks became less frequent and in two months he was apparently relieved. This patient got, with the bromide, ferruginous and other

tonics. The bromide in drachm doses made him so drowsy that he was unfitted by it for business while on its use.

In epilepsy and epileptiform troubles, bromide of potassium has exerted the happiest influence upon all the cases that have come under my observation.

In what are popularly known as sick-headaches, the medicine has proved in my hands a sovereign remedy. I should hardly state the case too strongly if I said that I had found it almost infallible. A medical gentleman, aged sixty-seven years, had suffered nearly all his life with sick-headache, having attacks generally once a week or oftener. Indiscretions in diet, mental or physical fatigue, loss of sleep, etc., were pretty sure to bring one on, and frequently they came on without any assignable cause. In his case, after half a century of suffering he has found the bromide a cure, and now no longer dreads his old tormentor. He keeps a supply of the drug on his mantel-piece and on the approach of headache, which is now comparatively rare, takes from forty to sixty grains, and generally is relieved by a single dose. This case is one of many of the same intractable affection in which I have prescribed the bromide successfully. In the headaches, and the nervousness following a debauch, it acts like magic; and no medicine is so efficacious in securing rest and sleep in *delirium tremens* according to my experience. In hysteria and hypochondria, it does good, and its effects are most happy in the insomnia of infants and old people, as also in that condition arising from the pruritus of lichen, from excessive mental exertion, anxiety of mind, the nervousness following frights, &c. A female patient in the early stages of pregnancy was terribly frightened. She was rendered painfully timid and nervous by day, and was kept awake at night. She took, for a fortnight, a drachm of the bromide at night, and is relieved.

Two cases of cerebro-spinal meningitis in my practice have apparently been cured by the bromide of potassium. One was a child, aged three weeks. It took four grains at intervals of two hours when able to swallow, which, owing to the frequency of the convulsions, was not always the case. The second was six months old. It took eight grains, at intervals of three hours. Both patients continued to get the medicine in those doses at these intervals for several days, and after that the doses were given

three times daily for a week. A brother of the second child died of the same affection, about the same age, a few years since, under my care, and several male children in the family have been carried off by it.

In drunkards I think I have seen the bromide of potassium diminish the craving for spirits, and even for a time destroy the propensity to drink. In pure cases of neuralgia, not dependent upon syphilis, malaria, or inflammatory trouble, I have found it to act admirably; but in the delirium of typhoid fever, in the pains of syphilis, of variola, and of erythema nodosum, immense and continued doses of it have afforded no results. I have also found it impotent in preventing chordee and destitute of all anaphrodisiac power. I have never seen it do good in lumbago, or dysmenorrhœa, and in malarial and inflammatory affections it seems to me to be wholly without remedial efficacy.

The drowsiness, confusion of thought, and unsteadiness of gait which sometimes follow the use of large doses of this medicine, soon pass off. The diarrhœa which now and then attends it is not troublesome.

My practice is to administer to adults, for headache, wakefulness, and, in truth, in every case where a prompt effect is desired, drachm doses of the bromide, in a tumbler, or not less than half a tumbler of cold water, hourly, till the wished-for effect is attained. Where the medicine is to be continued for any length of time, smaller doses are better, at least to begin with. To quiet infants, or to make them sleep, three, five, or even seven grains may be given with safety.—[*West. Jour. Med.*

ART. V.—CHLORAL.

Dr. Richardson recently opened his course of lectures on Experimental and Practical Medicine. The subject was Chloral; and many new experimental facts were illustrated; among others, the great decrease of animal temperature caused by the substance, and the production of prolonged anæsthesia by inhalation from an ethereal solution. The following is a summary of the lecturer's views given in the British Medical Journal: 1. Deep and prolonged narcotism can be safely produced by the hydrate of chloral. 2. During a portion of the period of narcotism, there may be complete anæsthesia with absence of reflex actions; a condition, in short, in which every kind

of operation fails to call forth consciousness. 3. During the narcotism, there are intervals of apparent exalted sensibility. 4. In the transition from drowsiness to stupor, there is no stage of muscular excitement; but in birds there is vomiting, as is common in the same animal in the second stage of narcotism from chloroform. 5. During the narcotism produced by the substance, there is invariably reduction of temperature. 6. The hydrate produces muscular relaxation; which relaxation extends to the muscles of volition, and also to the iris and muscular arterial system. From the condition of the muscles after death, it may be inferred that this paralysis is in part due to change within the muscular structure itself. 7. The action of the substance on the nervous system is primarily on the sympathetic ganglia, afterwards on the cerebrum; and, finally, on the heart. 8. Recovery is followed by no bad results. 9. In fatal cases, the functions are destroyed in the following order: *a.* the cerebral; *b.* the voluntary muscular; *c.* the respiratory; *d.* the heart. 10. The substance, in small proportions, prevents, in some degree, the coagulability of the blood; and in large quantities, stops the process of coagulation altogether. In large quantities, it also destroys the blood-corpuscles, and produces general destruction of blood. But to produce deep insensibility, the dose administered need not be so large as to lead to serious derangement of blood. 11. The phenomena observed correspond with those observed under chloroform; and the balance of evidence is, that they are the result of the action of chloroform. 12. Therapeutically, the agent is to be accepted as the rival of opium. It promises to be useful in cases where there are increment of animal heat, muscular spasm and pain. It will be worthy of extensive trial, in tetanus especially. The dose of hydrate of chloral for a child is seven grains; for an adult, the dose may be extended to one hundred or even one hundred and twenty grains. The lecture was illustrated throughout by experiment; and the lecturer received hearty applause from those who were present.—*Med. and Surg. Reporter.*

ART. VI.—A SELF-RETAINING LABIA PUDENDI RETRACTOR. By GEO. SYNG BRYANT, M.D., Lexington, Ky. (With a woodcut.)

The various fistules, injuries and diseases requiring

surgical interference, call so frequently for the use of the speculum, that it is now used by almost every practitioner of medicine both in city and country. The object sought in the use of the speculum is to bring into view and easy reach as much as possible of the vagina, with the entire os and cervix. Various specula have been invented for this purpose, but all have fallen short of this much desired end.

My modification of Sims' speculum, which is perfectly relf-retaining, is perhaps nearer the accomplishment of this object than any other instrument yet invented; and still there is something wanting even in this speculum. It is ths: while the perineum is carried back to any extent required, and the posterior labia are well separated, the middle and anterior portions of the labia, in fleshy or in loose and flaccid persons, are not sufficiently kept apart to afford a full view of the vaginal walls. In the ordinary surgical treatment, with cauteries, this is not a serious inconvenience; but in operating for fistules, it is a matter of great moment, for the hands of an assistant are required to keep the labia apart, and also to hold the wires as they are being inserted until they are twisted together.

This labia retractor, as shown in the accompanying figure, supersedes the use of hands by assistants in these operations. The wings of the speculum, and the outer borders of the retractor, antwer as racks or fastenings, to which the wires may be attached in fistulous operations.

With my labial retractor and speculum, the ultimatum of reaching the interior of the vagina does seem to be attained. I have used these instruments frequently in the presence of physicians, and, in every instance, to the complete satisfaction of all who have witnessed the application. And recently, in the operation for double vesico vaginal fistula, with Prof. Bush, of this city, with the happiest results.

The figure requires no explanation, except that the

spring of the bow or bend must be sufficiently strong to keep the labia apart. A spring, with a screw or ratchet attachment, would perhaps answer a better purpose. The single spring is, however, cheapest. This instrument is well made by Gemrig, of Philadelphia.—*A. Jo. M. Science.*

ANALYTICAL DEPARTMENT

"Qui e nuce nucleum esse vult, frangit nucem."—PLAUTUS.

ART. I.—ANALYSIS OF VARIOUS ARTICLES. Published in the Medical Times and Gazette, the British Medical Journal and the London Lancet. (Original copies.) By PROF. JAS. M. HOLLOWAY, M.D., Associate Editor.

Pancreatic Juice.—M. Chauvin and M. Morat have recently presented before the Academy of Sciences of Paris the results ef experiments with pancreatic juice, confirmatory of those made by other physiologists. In addition they have decided that the action of this juice upon the three species of alimentary substances is to completely digest them, even in the interior of the stomach, in the presence of the gastric juice, and also in the presence of hydrochloric acid largely diluted with water. [Such results will go very far to increase the therapeutic application of this secretion as a remedy in the treatment of some forms of indigestion, of phthisis, and of tabes mesenterica. They are, moreover, indirectly confirmatory of the views now more generally held by physiologists in relation to the digestion of hydrated starch by saliva after the food has passed from the mouth into the stomach. The saliva and the pancreatic juice are both alkaline; if one of these fluids can continue to exercise its digestive power in the presence of a free acid, it is not unreasonable to infer that the other also can.—J. M. H.]

Nitrous Oxide Gas.—Mr. Coleman, at the Dental Hospital of London, has recently made an improvement in the administration of this gas for the extraction of teeth. This improvement is based upon the well known fact that the admixture of atmosphere with the gas impairs its efficacy. He therefore first displaces the residual air in the lungs by causing the patient to inhale nitrogen.

After this the nitrous oxide is administered. It is claimed for this method that there is less lividity of the countenance, the patient comes more speedily under the influence of the gas, and it is more economical.

Dilatability of the Female Urethra.—Dr. A. Garden, Surgeon Indian Army, reports three cases of extraction of vesical calculi from females by rapid dilation of the urethra without the employment of the knife, in which the patients recovered complete control over the bladder in a very short time. The largest stone removed measured two inches through its shortest diameter.

Treatment of Pedicle in Ovariotomy.—C. F. Maunder, Surgeon to the London Hospital, thinks that too much importance is attached by different surgeons to their respective modes of dealing with the pedicle after ovariotomy. Each surgeon who can show a small mortality in his own practice is disposed to attribute the success to the special manner in which he has disposed of the pedicle. The results (recovery or death) should rather be attributed to the general condition of the patients operated upon. The main point to be observed in treating the pedicle is to prevent hæmorrhage. He closes his article with the following paragraph:

"While, then, I advocate, as a rule of practice, keeping the pedicle outside the belly, exceptions will occosionally arise. But, as in every other instance in which an operation is contemplated, our great aim should be to endeavor to discover those signs and symptoms which may lead us to predict a favorable or an unfavorable result. I believe any special way of treating the ovarian pedicle, beyond the object of preventing hæmorrhage, to be a matter of comparatively little moment, and that it will not affect the rate rate of mortality to a noticeable degree."

Dr. Barnes' Water-Bags.—Dr. Robert Barnes, in replying to an objection urged by Dr. Playfair to the employment of the water-bag for the induction of premature labor, because its use in three instances brought about a mal-presentation, lays down the following propositions:

"1. In induced premature labor the accomplishment of delivery is extremely uncertain as to time.

"2. This uncertainty involves danger to the mother and child.

"3. The immature condition of the uterus often entails defective contractile power and increased resistance to the passage of the child.

"4. Hence it is desirable to aid the dilatation of the cervix, and to supplement the contractile power, to watch and control the course of labor throughout, and to bring it to a termination within a definite period.

"5. This aid can be afforded safely and beneficially by the cervical water-dilator, and by the forceps, and turning.

"6. By the proper use of these accelerative means, children may be saved which would otherwise in all probability perish.

"7. In the management of cases of placenta prævia these accelerative means are of eminent value.

"8. Labors may always be completed with safety within twenty-four hours."

CLINICAL RECORDS.

"Ex Principiis, nascitur probabilitas: ex factis, vero veritas."

ART. I.—TREATMENT OF CONSTRICTIONS OF THE OS AND CANAL OF THE CERVIX UTERI, AND KUNCKLING OF THE NECK OF THE WOMB. By GEO. SYNG BRYANT, M.D., Lexington, Ky.

When the narrowing is sufficient to obstruct the flow of the secretions and exudations of the mucous membrane of the uterine cavity, these fluids become dammed up and are expelled by muscular effort.

If there is an inflammatory condition of the tissue proper (muscular tissue) of the womb, muscular contraction will, almost of necessity, be attended with pain. Such is the case with the voluntary muscles, and we may safely infer the same to be true of the involuntary muscles. But constrictions of the os and canal of the cervix uteri are not necessarily accompanied with pain, for if the flow be slight, and the fluids are carried off as fast as they are poured out from the mucous membranes no accum-

ulation can occur. When the womb is sensitive from disease (or connaturally, as with some women) menstruation may be painful, though the canal and os are of normal size, if the periodical flow is excessive, so that it cannot be conducted away as fast as it is poured out from the mucous membrane of the cavity of the body. So a constricted canal is not always attended with dysmenorrhœa, nor is one of normal size necessarily free from it.

But there is a class of cases which I have seldom seen unaccompanied with pain. I have reference to chronically inflamed wombs, with more or less hypertrophy, where the mucous membrane, of cervix and body, and submucous tissue are involved; and at the same time the neck bent upon the body, constituting either anteflexion or retroflexion, with anteversion or retroversion. At the knuckling, the anterior and posterior walls of the canal are unavoidably in close contact and the secretions cannot be expelled without effort. In these cases there is much distress at the periods, and sometimes during the intervals; pain being seldom absent in the hypogastric region, loins, sacrum and groins. When confined to one groin it is most frequently in the left. There is usually pain on micturition and defecation. In narrowings and strictures of the os and canal, the intra-vaginal portion of the cervix is generally of a conical shape, and is much elongated, with more or less fibrinous infiltration, causing the mouth and neck, and sometimes the body, to be firmer to the touch than the healthy womb. The sensation imparted to the finger by touching the normal uterus is compared, by Bennet and others, to that which the end of the nose would give. This is a good comparison, which should be borne in mind when instituting an examination by the touch. My observations agree with those of Drs. Sims and Barnes, that the narrowing is al-

most aiways found anterior to the internal os or coarctation of the cervical canal.

The rational treatment in all these conditions is to open up the os and canal, reduce the hypertrophy, vitalize the womb and modify the diseased state of the mucous membrane if inflamed and ulcerated; and it is seldom that chronic inflammation of the mucous membrane is absent in cases of this character. In this state of things there is generally a great deal of congestion present, which seldom entirely subsides between the periods and which in some degree explains the constant suffering of the patient.

To open up the os and canal so that the entire mucous membrane of the cervix and body of the uterus can be freely cauterized, and at the same time afford an easy outlet for the fluids poured into these cavities, I have been, for more than two years past, in the habit of only nicking through the mucous membrane of the os and canal up to the ostium internum in four, six or more sections, depending upon the degree of the stricture and induration of the tissues. The bleeding is never excessive, as no important vessels are cut. After it ceases, a carbolized sponge tent is introduced the size of a bougie, varying from No. 6 to 10, and of sufficient length to reach the cavity of the body of the womb. It is allowed to remain from six to twelve, or even twenty-four hours if it occasions no distress. And it is worthy of remark, that after the first two or three hours, the carbolized tent seldom gives the slightest inconvenience for twenty-four hours; the longest time I have suffered one to remain. The sponge tent appears to exercise a vitalizing influence upon the uterine tissues, always softening them, however great their induration before its introduction.

Fig. 1 is intended to represent the appearance of the os after the operation.

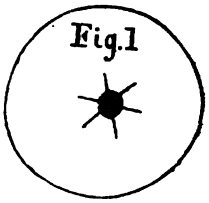
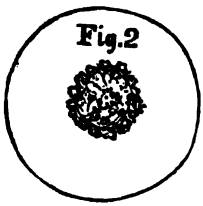
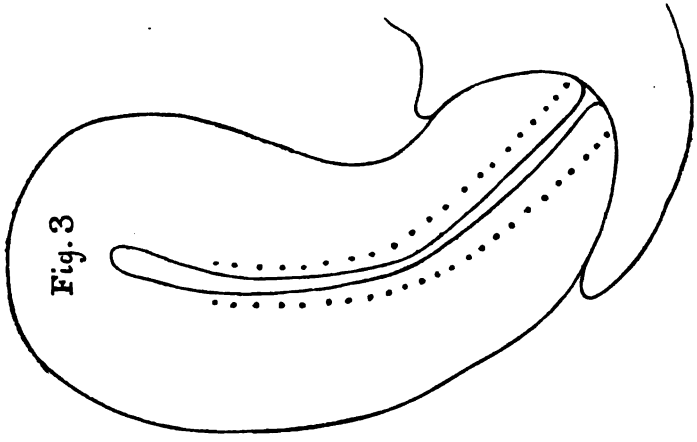


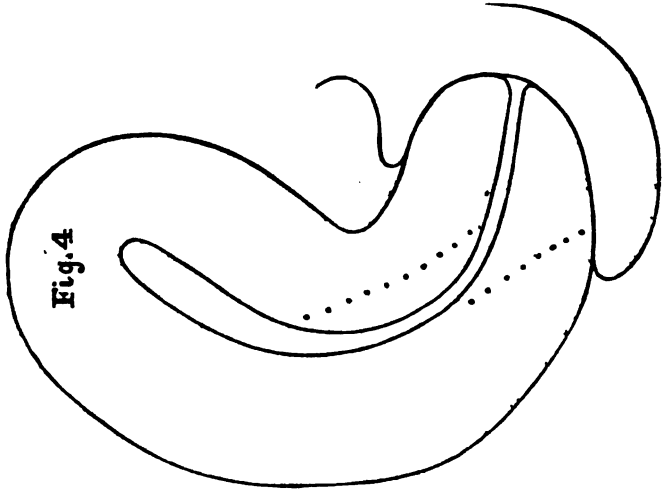
Fig. 2 represents it after the introduction of the tent. When the tent is removed after six, twelve, or more hours retention, the patient is allowed to rest from twenty-four to forty-eight hours, with no treatment, except a free use of tepid injections composed of four drachms of glycerine and two drachms of laudanum to the half gallon of water. When the tent is again introduced it is, in most cases, well borne for twenty-four hours, after which it should be removed. After the removal of the first tent the, injections are to be used and continued to the end of the treatment, both while the tent is inserted and during the intervals. In forty-eight or seventy-two hours after the removal of the third tent, the cavities of the cervix and body of the uterus may be cauterized with nitrate of silver, chromic acid, or acid nitrate of mercury. If the first named cautery be used, it may be repeated at intervals of from six to eight days. If either of the other two be used, the intervals should be from ten to fifteen days, according to the condition of the patient. The epithelial coat should be completely formed before a reapplication of the cautery. The tent may be resorted to at any time in the after treatment, if there is tendency again to contraction of the cervix. The nicking operation, as above described, is only for the unbent womb. If the womb is not flexed upon itself more than 70° or 80°, as represented at Fig. 3, the same plan of treatment is pursued, with the exception that the nickings or divisions of the mucous membrane are made through the anterior and posterior walls exclusively, no



incisions being made laterally. If the flexion is greater



than 80°, as shown in Fig. 4, it will be necessary to divide



the posterior or anterior lip, as directed by Dr. Sims, before the canal can be properly incised through the anterior and posterior walls.

For opening up the canal of the cervix in these various conditions, I have added three probe-pointed blades to Dr. Sims' uterotome. They can be used in ball-and-

socket handle, or the pivot-and-rivet handle invented by Dr. Sims.

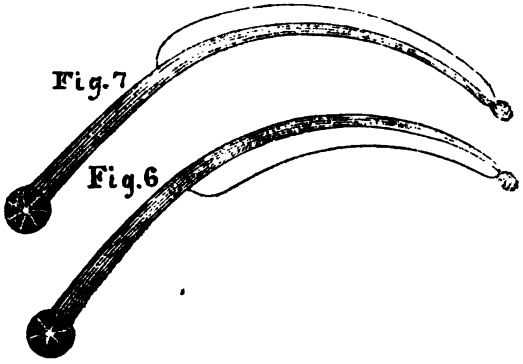
Fig. 5 represents the straight blade, which is 2½ inches in length.

Fig.5

Figs. 6 and 7 are the curved blades for cutting the anterior and posterior walls of the flexed womb, each

Fig.7

Fig.6



blade 2½ inches in length. Fig. 6 cuts upon the concave edge and Fig. 7 upon the convex. It is not advisable, except in rare instances, to divide the anterior lip in retroversions with retroflexions. Deep cutting, in this form of displacement and distortion, is sometimes followed by acute inflammation, and may result in abscess. I could give numerous examples of cases which I have treated by nicking and the use of the carbolized sponge tent, and in no instance have I seen injurious consequences result from the treatment. I give the folluwing, which were treated by me in St. Louis, each a type case of its class:

Case 1.—Miss ——, from Wisconsin, æt. 24; menstruated at 14 years of age; continued regular and normal until the age of 18, when she contracted violent cold, at a period, which resulted in derangement of menstruation;

had not been free of pain at a period for six years. At time of operation patient was laboring under severe dysmenorrhœa; a slight degree of retroversion—about 45°; elongated, conical neck, with hypertrophy of body and cervix. Depth of cavity to fundus 3 inches. The os externum and canal of the cervix, for an inch, was contracted two-thirds below the normal size. Both cervix and body of the uterus were tender on pressure. Constipation a constant attendant. Almost continuous pain in sacrum and hypogastric region, but worse at the periods, and painful defecation with dysuria. Periods continued from six to eight days, but were never profuse —usually too scanty. The patient was subject to paroxysms of great mental depression.

May 16th, 1867.—Assisted by Dr. Feehan, I nicked the the os and cervix to the internal os by six incisions with the straight probe-pointed blade, cutting through the mucous membrane up to the coarctation, the incisions there being not so deep. After the slight bleeding was over the carbonized sponge tent was introduced and allowed to remain for twenty-four hours. When removed it was without odor and the canal so dilated that it admitted my finger to the coarctation. The tent was introduced every third day until three were used. In the intervals, and also when the tent was within the canal, the injections of tepid water, with laudanum and glycerine, were freely used. After the canal was opened up the cavities of the body and cervix were cauterized with chromic acid once in twelve or fifteen days, still continuing the injections. The bowels were kept soluble and, with a nutritious diet, the patient was in six weeks menstruating without pain, and with an os and canal well opened, which did not contract again. I examined this case the last of March, 1868, and found the os normal, the canal well open, the uterus in its proper axis,

the cavities 2.6-16 inches to the fundus, showing a natural size. Menstruation regular, of four day's duration; general health good.

Case 2.—Mrs. ——, æt. 29; married; sterile; menstruated at 13 years and not again until 14 years of age. From that time continued regular and normal until her marriage, at the age of 23, after which menstruation became irregular and painful, and so continued up to the time of patient being placed under my care for treatment in August, 1867. The case was one of anteversion with anteflexion about 60°. Depth of cavities to fundus 3¼ inches. Os and canal for ¼ of an inch so small as only to admit my smallest-sized flexible silver sound, which is a fraction less than 1-12 of an inch in diameter.

In this case there was vaginismus with distressing pruritus; muco-purulent leucorrhœa (deep yellow) almost constant, but more abundant before and after periods. At menstrual periods, suffered greatly with nervous headache. Had frequent pain in the bladder and at monthly periods almost constant desire to make water. Was not troubled with constipation. Chronic inflammation of mucous membrane, of cervix and body; submucous tissue much involved; induration and elongation of vaginal cervix.

Operation on the 12th, assisted by Professor Maughs. Chloroform was administered on account of the extreme sensitiveness of the patient. I nicked through the mucous membrane of the os and cervix to the cavity of the body, by two incisions in the posterior wall, and the incisions in the anterior wall. After the bleeding, which was moderate, the carbolized sponge tent was introduced, and a cotton tampon, saturated with glycerine, placed in the vagina to prevent the tent from slipping out. The general plan of treatment as described in case 1 was carried out in this. The recovery was complete, the canal and os being fully restored to their normal size.

Case 3.—Mrs. ——, æt. 28; married; sterile; nervous temperament; had labored under dysmenorrhœa for eight years; had not had a period during that time without great distress in the pelvic region. Pain almost insupportable in hypogastric region, frequently attended with bearing down. Hysterical epileptiform convulsions for the last three or four years had been a constant attendant at her periods. Indeed, in this case, life had become almost a burden. Uterus anteverted and flexed upon itself to about 90°. The os and canal had become so small that the smallest-sized flexible probe could be introduced only with the greatest difficulty for the first 1½ inches, after which there was no further resistance. The freedom with which the distal end of the sound turned showed the cavity to be large—far beyond the normal size. Depth of the cavity to fundus 8½ inches; neck elongated, indurated and conical; tenderness along the entire interior wall.

On January 23, assisted by Prof. Gregory, I performed the following operation. The posterior lip was divided, on the plan of Dr. Sims, to ¼ of an inch of vaginal connection; the mucous membrane was nicked through in the posterior wall of the cervix to the cavity of the body by two incisions, and the anterior wall was made straight by the same number of incisions. After the bleeding, which was not profuse, the carbolized sponge tent was introduced, and allowed to remain for twenty-four hours without producing the slightest inconvenience to the patient. The day following, Prof. Gregory being again present, the tent was removed and was without odor, and the cavity of the cervix was sufficient to receive my forefinger. The plan of treatment described in case 1 was pursued in this. By the last of March the incisions were healed, the os and cervix uteri well open, and the patient had passed through the menstrual period of five

days duration and normal quantity, with but little pain. The womb was nearly in its proper axis, and depth of cavity reduced to 2¾ inches.

I have for more than thirty months past used carbolic acid for making the sponge tent antiseptic. Ten or twelve grains of chrystalized carbolic acid should be dissolved in an ounce of thick gum mucilage. The sponge, previously trimmed while wet to the shape and size preferred, must be saturated with the mucilage and wrapped upon an awl with a well-twisted end, beginning, as Dr. Sims advises, at the small end, or apex, and proceeding to the base. The impressions of the cord are left upon the sponge in order to give it a rough surface. The sponge, being of a screw shape, is easily twisted into the cervix, and after insertion is not liable to slip out. When the tent is carbolized, it does not irritate like the ordinary sponge, as the retained secretions do not become putrid.

ART. II.—REMOVAL OF THE ENTIRE CLAVICLE FOR OSTEO-SARCOMA—RECOVERY. By F. COOLEY, M.D., Kansas City, Mo.

John Scott, aged thirty years, of Kansas City, Mo., came into my office, accompanied by his medical attendant, Dr. Cadwell, on Tuesday, September 28th, 1869, to consult me in reference to an enlargement of the left clavicle, which was causing him much pain, increased by rough handling given it a few days previously by a physician of the town. Upon examination I found the centre of the bone considerably enlarged, hard, and quite sensitive. The day following another examination was had and the conclusion arrived at was, that the bone must be removed.

On the 30th of September I proceeded to operate, assisted by Drs. Cadwell, Taylor, and Todd. The patient

was laid upon a table, and being put under the influence of chloroform, an incision was made directly over the tumor down to the bone. This procedure was had hoping we might be able to save a portion of the bone, yet at the same time prepared to prosecute the operation to its complete removal should the disease demand it. In extending the incisions toward the sterno-clavicular articulation, I felt satisfied I would have to disarticulate the bone. At this stage of the operation a small muscular artery spirted out for a moment only, when it ceased to bleed. I then extended my incisions toward the acromion attachment. I now disarticulated the bone at its sternal attachment and requested Dr. Taylor to raise the bone just a little by means of a vulsellum to enable me to proceed more surely with the operation, when it gave way about its center, showing complete disorganization of the bony structure. I next proceeded to dissect the bone from the surrounding structures and finally to disarticulate it at its acromion attachment.

The operation being completed, the large wound was brought together by means of the interrupted suture and adhesive strips, and over these a compress and bandage.

The operation occupied twenty-five minutes. Not a single artery had to be ligated*, which was a most remarkable circumstance. The loss of blood was insignificant.

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*In a similar operation, Dr. Valentine Mott used *forty ligatures*. He called it his Waterloo operation, and many surgeons have on this account anticipated that this operation is a most formidable undertaking.

Prof. Charles Bell Gibson, of Richmond, Va., performed this operation during the war and did not find it necessary to tie more than a few small vessels. The publication of such cases will remove from the professional mind the erroneous impression which the unquestioned peculiarity of Mott's case very naturally created. —[Ed.

On the 9th of October he walked about his room, on the 20th was out on the streets, and on the 25th he was in my office completely recovered.

At this writing, November 6th, he is attending to business.

ORIGINAL CORRESPONDENCE.

"Sit mihi Fas scribere audita."

PARIS, 1869.

From a long conversation which I have had with M. Lefort on the subject of Paris prostitution, I have gathered the following facts:

Prostitution in Paris is of two kinds—the licensed and the clandestine. The first is again divided into two classes—(*a*) houses of tolerance, (*b*) women living single, and provided with cards from the Bureau des Mœurs.

The houses of tolerance—233 in number in 1845, 165 in 1867, a decrease which must be attributed to the increase of clandestine prostitution—are distributed in and around Paris. The inmates of these houses are inspected once a week by a physician from the Bureau des Mœurs; if any are found diseased, they are sent to St. Lazare, our venereal hospital for prostitutes, to undergo treatment. The sending to St. Lazare is of but little importance to these women—some of them even look upon this trip as a sort of recreation—consequently it is to them no punishment. The inspections do not suffice. Moreover, we may ask, are these examinations rigorously enforced? Does the medical man in attendance do so with the necessary care? It is doubtful, and those best informed say no.

But, even as it is, venereal diseases come least from the licensed houses, and this can be easily understood; any disease from them is immediately shipped to the hospital,

whereas, if occurring in those not at all examined—clandestine prostitution—it is allowed to spread indefinitely.

The houses of tolerance situated in the faubourgs of Paris, divided again into those of the *petite* and *grande banlieue*, are not, like those in the centre of the city, visited by the physician, but their inmates are brought to the Bureau for examination once a week in an omnibus.

The second class of licensed prostitutes, larger in number—there are about 6000 in the city, and daily increasing—are also more dangerous to the community and the public health than the first class. They are provided with cards from the Bureau des Mœurs, where they are inscribed. They live singly, and only have to report themselves at the Bureau once every two weeks for inspection. They are permitted, from sundown until 11 o'clock at night, to frequent any of the streets of the city excepting the boulevards and the Champs-Elysées.

This class is gathered from the so-called clandestine prostitutes. These, whenever they become too flagrant, are arrested and brought before the Bureau for examination. In case they can show no honest means of support they are inscribed, provided with cards, and made subject to the rules and regulations of carded women above mentioned. It they are found diseased—which has been the case in one out of three every time such arrests have been made—they go at once to St. Lazare. Unfortunately, it is very difficult to make these arrests, and, as M. Lefort justly remarked, it is hard to say where libertinism ceases and where prostitution begins. The police of the Bureau employed for this purpose are not in uniform; consequently their opportunities for espionage are very extensive, and it very often happens that proof is not wanting. But even then the case is not lost; the parents, if the culprit is less than 21 years of age, which is nearly

always the case, call for their child, and claim her under the law of minors. Thus out of 13,000 arrests made in the last five years, only 1200 subjects could be held and put upon the register.

As some few mistakes have happened in these arrests—at least, there was no clear proof—the agents have to be extremely cautious. It sometimes occurs, though seldom, that a call is made at the Bureau for a card. In these cases, after the unfortunate tells her story of being alone, abandoned, without money, and no support, the Bureau —be it said in its praise—generally uses the best effort to procure employment, and means and money are often furnished. In this manner, though the cases are very rare, an occasional soul is saved.

As to the police rules laid down for a woman put upon the register, we wish to say nothing; the only point of interest to us, for the moment, is the measures which are taken to prevent disease. As I have said before, the examinations are not made at the place of residence; the women report themselves every two weeks at the Bureau. One out of every seven is found diseased, which alone proves that the time which is allowed to elapse between each inspection is entirely too long. There are many, however, who do not report themselves, especially if diseased, for fear of being sent to St. Lazare; thus many escape inspection for a long time, but their commerce continues and infection spreads. If the inspections were made twice a week and rigorously, instead of every two weeks, which is merely absurd, venereal disease would be materially lessened among this class of women, and what the Bureau would lose pecuniarily in calling a few more physicians in aid, would be gained in lessening the St. Lazare expenses and in protecting the public health, which ought to be the aim.

The last and worst class of prostitutes, the clandestine,

remains to be considered. They are on the increase; their number for the city of Paris is estimated at 40,000. The greatest ratio of syphilis has its source here. As before said, one out of every three arrested was found diseased; and of 4070 male patients treated by M. Lefort at the Midi, 2302 had contracted the disease from private women. But this is not all. The larger class of the public —those who have any means at all—do not consult the Midi surgeons at their hospital. If we could gather a similar statistic from M. Ricord and many others whose clients come from the wealthier portion of the community, we should be sure to find by far the largest amount of disease coming from *bonnes fortunes*.

The efforts of the Bureau des Mœurs in attempting to remedy this great evil are paralysed as long as the father has the right to claim his child. In nine cases out of ten this is merely done to protect them in their shameful commerce. Only for those who have passed the age of 21 can inscription be enforced. If, says M. Lefort, the father could be held responsible for his child by making him pay a penalty, or, in case of a second offence, the Bureau could have the right to cause the arrest to be made, so as to permit inspection and register, much good might be expected.

As it is, syphilis is increasing in Paris; but not only because of the increase of clandestine prostitution, but also because the examinations of the *filles publiques* do not accomplish the desired end.—*Med. Times and Gaz.*

NOTE.—These valuable facts teach the lesson inculcated by the examinations of Dr. Andrews, of the United States, who has investigated this subject at most of the large European and American cities, that the system of examining and licensing prostitutes is powerless to arrest or diminish the spread of venereal disease.[—ED.

BERLIN, 1869.

Those whose attention has not been specially called to the subject of nervous diseases will probably be somewhat surprised at the statements that I am to make in regard to the amount of attention that is now given to this department of science in Germany. The treatment of nervous diseases by electricity has here commanded a wider interest than in any other country. I am told by Hirshwald, the well known medical publisher of Berlin, that during the last ten years *fifty* treatises on electro-therapeutics have appeared in Germany alone. In Berlin there are at present half a dozen physicians who devote themselves specially to electro-therapeutics; in Vienna there are three or four well-known authors in this department, chief of whom is Benedikt, whose elaborate and original though somewhat Germanesque work on electro-therapeutics has attracted considerable attention among the leading neurologists of all countries.

Berlin is the home of Romberg, whose writings on nervous diseases have become popularized through the translation of Sieveking. Though now somewhat advanced in years, he yet continues in active service. Berlin was the home of Griesinger, one of the ablest writers and thinkers on psychological science of this generation; but he has recently passed away and his loss is much deplored.

The Journal of Psychology and Nervous Diseases is ably edited here by Drs. Westphal and Ludwig Meyer. The best known of the electro-therapeutists of Berlin is Moritz Meyer, whose excellent treatise Dr. Hammond has recently introduced to the profession of America.

The patient industry of these Germans in their special departments is as wonderful as it is proverbial. I have attended private clinics for electro-therapeutics here as early as half-past seven in the morning. Dr. Hitzig, to

whose courtesies I am much indebted, meets his charity patients in his "policlinik" three times a week, in the morning hours, beginning at half-past seven, just the time that the physicians of London and New York are accustomed to devote to their private patients. Careful records of these cases are kept, and the progress minutely recorded from day to day. The money question seems to be almost entirely ignored by these patient lovers of science. Even their highest authorities—Traube, Frérichs, Langenbeck, etc., do not (except in very rare instances) make the large incomes of their brethren of corresponding reputation in London and New York. The average income of the great body of the profession is small indeed; and the astonishing and probably exaggerated statement has been made to me that not one in ten of the physicians of Berlin supports himself comfortably by his professional income alone. It is a fortunate compensation for these moderate fees that the prices of living in Germany are not regulated by the standard of New York.

The tendency to specialization, for which the Germans are so distinguished, is observed in the hospitals. In the charity hospitals of Berlin a separate ward is devoted to nervous diseases, under the direction of Dr. Westphal. In this ward are found the cases of locomotor ataxy (or tabes, as they very frequently term the disease in Germany), myelitis, tic-douloureux, epilepsy, chorea, and the different forms of paralysis. *The prominent agent for the treatment of these diseases is electricity*, which is administered carefully and perseveringly under the eye of the resident physicians. In Germany the galvanic current is used much more than the Faradaic. An excellent galvanic apparatus for office or hospital use is made in Berlin; but a portable variety, such as we employ in New York, I have not yet seen.

Dyspepsia, constitutional neuralgia, and nervous exhaustion seem to be much less frequent in Germany than in America. Indeed the term dyspepsia, so familiar to nearly every family among the leading classes of American society, is here but little used. A friend of mind, who consulted a German physician for some unpleasant symptoms, was told that he had the "American disease —dyspepsia." On the other hand, locomotor ataxy, fatty degeneration of muscles, and allied affections, seem to be quite frequent here, so far as I can judge both from the literature of nervous disease, and from what I have seen in the wards of the hospitals and at the private cliniques.

The many friends of Graefe in America will regret to learn that his health has been so feeble that he was obliged to suspend active labor and flee to Switzerland. I was informed, however, by one of the assistants of his clinique, that his affection, which was of a pulmonary character, has been so far relieved by a change of air and scene, that there is good probability of his return to the duties of his profession.

The popularity of Graefe among the masses of the people is, I think, unparalleled in the medical history of modern times. It is to be accounted for partly by the fact that, although of noble descent, his sympathies have been with the people; partly by his well-known clinique, where 6,000 patients are annually treated; partly by a personal magnetism that both fascinates and inspires, and partly, also, by the good fortune in having been born in a land where scientific men are better appreciated and more highly honored than in any other nation of our times.

A distinguished writer, matchless in sarcasm, has said of Westminster Abbey, "that it contained many monuments without a name, and many names without a monument." The same remark will not so truly apply to

modern Prussia, for here the laurels are prepared for the meft of thought as well as men of action, for philosophers and thinkers as well as for kings and generals, for those who save life as well as for those who destroy it. Even Berlin, fresh from the late excitement of a victorious war, seems by no means to bring the first fruits of its affection to the altars of royalty, at least so far as can be judged from the numberless pictures, photographs and other similar expressions of the popular feeling that abound in the streets and shops of the city. Far above the names of king William and Bismarck, and surmounting them as the dome of a cathedral surmounts its minarets and towers, is the name of Alexander von Humboldt. Such popularity of scientific men is unknown in America or in England. They here accord to Humboldt the honor which we are accustomed to bestow only on military deliverers and distinguished statesmen, and the shop windows and book stores of Berlin display almost as many remembrances of that great leader in science as New York presents of Washington.

Next to Humboldt, the scientific name which is dearest to the masses of the people in Berlin is that of Graefe.

In Germany the number of those among the people who are interested in matters of science is much larger than in America. Scientific books meet with readier acceptance, and command a wider interest among the laity than with us. In walking the streets of Berlin, I am continually surprised to see the latest works of Virchow, of Graefe, and other medical authorities, exhibited for sale in the shop windows, in company with fashionable novels and all the varieties of general literature.

The relative number of scientific minds is so much greater in Berlin than in most other cities, that works of abstract science are sought for and appreciated by many for whom they were not specially prepared.

In Germany there are a number of scientific writers, who, like our distinguished countryman, Prof. J. W. Draper—and Prof. Huxley, Darwin, and Herbert Spencer in England—keep fully abreast of the progress of medical sc ence, though they never practice the art of healing. Among the most prominent of these at present are Moleschott, Carl Vogt—who contemplates, it is said, an early tour to America—and especially Buchner, whose writings, already translated into English, have passed to a new and revised edition.

Very truly, G. M. Beard.

—[*Medical Record.*

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

"Judex Damnatur cum nocens Absolvitur."

A Text Book of Practical Medicine with Particular Reference to Physiology ane Pathological Anatomy. By Felix Von Niemeyer, Professor of Pathology and Therapeutics, Director of the Medical Clinic of Tübingen. Translated from the seventh German edition by George H. Humphreys, M.D., and Charles E. Hackley, M.D., New York. D. Appleton & Co., 90 Grand street, New York. 1869. Two vols., pp. 732-762. Price, $7.00.

The space devoted to the review of recent publications can not be better appropriated, than in making an examination, somewhat in detail, of the work whose title, in full, is given above. Having reached a seventh edition in Germany, some of these editions being of triple size, and having been already translated into most of the European languages, the work is from these facts alone worthy of more than ordinary criticism. Though we have the classic works on this subject of Trousseau of France, Bennett of Edinburgh, Watson, Aitken and

Tanner of London, Wood, Flint, Dickson of America, with the elaborate system of medicine by Reynolds, etc., and numerous other works of less pretension and value, it can not be denied, that there is ample room for the translated work of Niemeyer now given for the first time to the American public. When this work is examined, it will be found, that whilst fully as well as concisely treating of the subjects usual in such a "Text Book," the author has not only treated many of these subjects in a novel and original manner, but that he has added to the work dissertations on many diseases and morbid conditions, not usually analyzed in a work of this character. Thus, he has presented elaborate chapters on venereal diseases, on diseases of the male and female sexual organs, on maladies and morbid conditions of the uterus, etc. While such chapters are unusual in English and American works on Practice, these chapters, as Niemeyer has presented them, are by no means an unwelcome feature of his work.

A work must be, as has been said, one of extraordinary merit to have reached its seventh edition in Germany, in a space of time somewhat less than ten years, and however imperfectly and inadequately its virtues and defects may be now analyzed, the work is certainly entitled to a careful review. One fact which will recommend it to the earnest student is, that it embodies most of the discoveries and advances which, during the last ten years, have been made in pathology and therapeutics. Whilst there is, perhaps, a characteristic elaboration in the pathology of the work, and an equally characteristic disposition to unjustly reduce the area and extent of modern therapeutics, it can not be denied that most of the discoveries in pathology are treated without any obscuring metaphysical analysis, and that much of what is now reliable in

therapeutics has received due attention at the hands of the author.

After the nihilism, or do-nothing system, which has obtained in medicine for the last ten years, a system making the modern physician as amenable to ridicule for his "how not to do it" mode of practice, as was the physician of a previous generation for his absurd habit of polypharmacy, it is refreshing to meet with a new work from a competent author, embodying convictions as to the demonstrable power of medicine, and enjoining upon the physician the prompt and frequent exercise of this power. While Niemeyer recognises the rational or purely scientific system of medicine, so far as to admit that something is to be gained by the adaptation of modern therapeutics to the relief of those morbid conditions revealed by modern pathology, it is evident, that, in the true sense of the term, he is an empiricist, and is disposed to expect most and to do most, by seeking to make the practice of modern medicine rest chiefly upon the basis of experience; or to make a system of medicine which shall represent, in its method, only those resources which have been tested by successful clinical experimentation. While all fair minds will grant that the physician is not, (as he has to so large an extent done in recent times), to adopt in practice a system of nihilism in all cases wherein he is unable to apply the resources of modern therapeutics to the discovered truths of pathology, (that he is not to remain idle and useless in such cases), it can not be doubted but that the professional mind will refuse so far to return to the past, as to make successful tentative expedients at the bedside the actual basis of modern scientific medicine. Such a course would be to practically confess an utter inability to apply the consecutive and great discoveries in physiology, pathology, hygiene and chemistry to the removal and mitigation of disease; it would be to

destroy or to abrogate all great and guiding principles in medicine, and to return in mortification and disgrace to a system of practice which all have reprobated and lamented in their predecessors; a system which must destroy all elaborate research in medicine and the collateral sciences, and consist chiefly in doing, as was done, in the the times of Hippocrates; to prescribe and treat experimentally, and to make a series of successful experiments and treatments the basis and only hope of modern medicine. Though it is very true, as has been stated by Niemeyer, that experiments upon the lower animals (in prosecuting researches of a physiological, pathological, chemical or therapeutical nature) are often unreliable and delusive, it is equally true, that medicine owes its greater part to those very researches which he would too rashly and too materially repudiate. This, however, is not the only objection to the dangerous system of relying upon a tentative method at the bedside as our guide in medicine; it is necessary to remember, that there is no greater fallacy than the assumption of an entity in disease, and also to appreciate the important fact that what may be a successful practice under certain circumstances and conditions may, as the disease thus successfully managed, is seen in other persons, temperaments, climates, seasons, stages, etc., become a practice wholly unreliable and mischievous.

This teaching of Niemeyer represents to a large extent that of many prominent teachers in Europe and America, at the present time, but it is none the less dangerous and questionable. Many leaders in medicine now teach that disease is only to be studied and investigated in the hospital and at the bedside; that to understand principles and forces one is to study chiefly their manifestations! As well may he attempt to learn the grand laws of the tidal wave, by studying the curious relations of marine

shells as cast upon the sea-beach. It is a dangerous retrogression to admit, that medicine rationally rests for its efficiency, honor, safety and progress upon a basis of successful clinical experimentation, and that the hope and pride of modern medical science, the adaptation of remedial measures to the discoveries in physiology, pathology, chemistry and hygiene, must be abandoned, as an exploded myth and an untenable delusion. The professional mind clings with increasing force to the conviction, that however useful and valuable, may be clinical experimentation, observation and research, the true progress of medical science depend upon elaborate investigations in the fields of physiology, pathology, chemistry and hygiene; and upon a scientific adaptation of the truths and principles which such investigations always reveal, rests our chief hope in the present and the future of medicine. It is highly important and instructive to see truths thus obtained illustrated and corroborated at the hospital, but as telescopic study alone of the heavens would never reveal those mathematical principles, an understanding of which enables the astronomer to compute the grand orbits of celestial bodies, so the closest clinical study can never reveal the nature of those laws and forces, the manifestation or results of which the physician observes at the bedside. It is wise to study clinical results, but it is wiser to investigate their causes; it is instructive to watch the progress of diseases, but it is a higher and nobler office to so study their etiology as to be enabled to modify or prevent them.

As the astronomer to understand results which he is actually beholding must study the laws which produce them, so the physician can never appreciate what he sees and hears at the bedside, until he has carefully studied elsewhere the nature of the causes giving rise to such results. While clinical experimentation and observation

must continue to be a part of our method for the discovery and corroboration of truth, still they can only and ever be *a part;* the modern medical mind will never admit that they constitute the chief part, and still less will it ever be induced to accept them as the very basis of progress and discovery. Bedside experimentation, therefore, *must remain a part only* of medical study and not become, as Niemeyer and his followers would teach, the source of all that is to be hoped for or expected in modern medicine. In this respect Niemeyer's teachings will not be and can not be allowed to pass unchallenged by the medical mind of the present day. Clinical teaching and teachers are invaluable, but not sufficiently so as yet to be accepted as a substitute for the whole science of medicine.

It is startling to find so distinguished an author and authority as Niemeyer writing as follows: "I lamented that physicians, instead of striving to promote the healing art by their own efforts, should seek aid from the institutes of physiology and pathology, or from the laboratory of the chemist, obtaining now and then an ingenious suggestion, but never gaining an idea serviceable in the relief of an afflicted fellow-creature. I finally declared, without reservation, that even the dazzling progress which pathology had made had been of but little use to therapeutics; that in spite of new discoveries, our present success at the bedside is scarcely more favorable than that of fifty years ago." If there is any one in the medical ranks to decry and depreciate the vast contributions made to the practice of medicine, by the "Institutes of physiology and pathology and chemistry," etc., the clinical teacher should be the last. How could the practitioner of the present day accomplish even a fraction of what he daily accomplishes, if debarred of that great fund of practical knowledge which the "Institutes of

physiology, pathology and chemistry," have placed in his possession? The physician has only to give a passing glance at the history of medical science to see what these "Institutes" have contributed for his practical instruction. What has not physiology contributed through Harvey to our knowledge of the circulation and our knowledge of all resources available only when the laws of the circulation are understood? What has this Institute not done for medicine through the contributions of Sir Robert Boyle, Bernouilli, Mayow, Priestly, Lavoisier and others in connection with the fundamental laws of respiration? What has it not taught the physician in regard to the vitalizing and curative influences of good blood, as illustrated by the labors of Boyle, Dennis, Emmerets, Blundell, Dieffenbach, Milne-Edwards, Prevost, Dumas, Bischoff and others? What has this Institute not done for medicine in its relations to the diseases and morbid conditions of the nervous system, as exemplified by the labors of Charles Bell, Magendie, Flourens, Légallois, Bernard and Brown-Sèquard? What has not pathology contributed to the active, practical and available resources of medicine, through those distinguished laborers Hunter, Du Hamel, Wagner, Ollier and a host of others? What has not it also done for the practitioner through the discoveries of Leuckart, Kuchenmeister and Siebold? What has chemistry not done for medicine? Destroy all that we have learned from the labors of distinguished chemists, toxicologists and pathological chemists and what would become of those means upon which the profession and public chiefly rely in times of disease and physical distress? It is indeed inexpressibly strange and incomprehensible that so accurate and philosophical an observer and worker as Niemeyer can, in his commendable zeal as a clinical teacher, so far exaggerate the claims of clinical medicine as to subordinate to it the

entire science of medicine. No more space, however, can be devoted to this subject.

As might have been expected, one of the most interesting parts of this work is that devoted to the subject of phthisis. The author attacks with boldness all of the most cherished dogmas that the profession has accepted, in this connection, from the great Lænnec. He ridicules the assumption that diathesis (as taught by Lænnec and his followers) is paramount in the etiology of phthisis, and whilst admitting that inherited vice may be and is causative of this disease, he attempts to demonstrate, from clinical evidence, that it is but one of many causes; bronchitis, pneumonia, pulmonary catarrh, with their products, being very frequently causative of phthisis. With Bennett, he regards the miliary tubercle as being the only tubercle; the yellow, cheesy, calcareous tubercles being but different manifestations or stages of the same pathological trouble, as taught by Bennett and others, are, in the opinion of Niemeyer, very frequently not tubercles actually, but the product of inflammation. Niemeyer admits that tubercle may undergo caseous degeneration, but that it is not peculiar in this respect, as the "caseous degeneration" may occur when certain transformations take place in the morbid products of the inflammatory process. These caseous masses, whether consisting of those elements of pus which have not been absorbed or whether due to a molecular transformation in other products of inflammation, soften and break down, giving rise to cavities wherever this softening may occur.

Of course such views, if sustained, not only change the pathological views entertained in regard to phthisis, but they teach the practical lesson, that our prognosis is not only to be materially altered in many pulmonary diseases, but that almost any of these diseases, as being under certain conditions causative of phthisis, must be watched

with more care, both by the profession and the laity. The general impression that pulmonary hæmorrhage is due to tubercle is believed by Niemeyer to be erroneous, and he considers the common belief that free hæmor rhage from the lungs is to be (as foreshadowing tubercle) accepted frequently as a death-warrant to be untenable and not borne out by clinical facts.

In treating of the various diseases of the respiratory organs, he makes one statement which must create quite a sensation among those practitioners who regard the formation of pseudo-membranes in the air passages with so much horror and dismay. "I know of a young girl of fifteen years of age who for years has almost daily coughed up a complete cast of the left bronchial tree." In this connection he offers what is claimed to be a fact constantly verified by clinical observation and post-mortem examinations, viz: that all croupal exudations involve only the epithelium, differing in this respect from the diphtheritic or ulcerative exudations which involve the subjacent structures; and consequently that the casting off of a croupal exudation is but the establishment of an excoriation, whilst diphtheritic membranes can only be removed violently or by the process of sloughing.

In connection with the subject of Icterus, the pathology of Niemeyer will not be generally accepted, inasmuch as there is an effort to establish a difference in the etiology of the two forms of jaundice which he claims to exist. Since pathological chemistry has clearly refuted the old and common dogma that biliverdin or the coloring matter of the bile exists preformed in the blood, and has also demonstrated the fact that biliverdin, like the bile salts, is the result of gland-action, pathologists have generally believed and taught that there can be but one cause for jaundice, and that this cause is an obstruction (occurring from a variety of conditions) of the larger or smaller

bile ducts. The old teaching that jaundice is due to suppression of hepatic action has of course been abandoned, for as biliverdin or bile pigment is the result of gland-action, if this action be suppressed, there can be no formation of the bile pigment, and consequently no jaundice. The old etiology of suppression has been abandoned and pathologists have regarded obstruction of the bile ducts as the reason of the tissue staining which is termed jaundice. Niemeyer, while abandoning the old teaching of jaundice from suppression of gland-action, still thinks it necessary to establish a two-fold etiology for this disease. He therefore teaches that there are two kinds of jaundice—hepatogenous icterus and hematogenous icterus. The first form is the jaundice from obstruction; the second, jaundice from the action of the bile salts upon the red corpuscles of the blood. Granting the truth of his theory, jaundice from this last cause could not be diagnosticated, inasmuch as for it to exist, there must have been an antecedent obstruction of the bile ducts, giving rise to a transudation of the bile salts, which act upon the blood corpuscles; and if obstruction exists to this extent, it is evident that there must be a transudation of the biliverdin as well as of the bile salts; it is therefore pathologically a mere *petitio principii* to assume, that the disease is caused from the action of the transuded bile salts upon the blood, when coincidently there is a more comprehensible and recognized cause for the disease, in the absorption of the transuded biliverdin with a consequent staining of the tissues by this pigment. Granting, therefore, Niemeyer's views to be correct, this form of jaundice (the hematogenous icterus) could not be differentiated, inasmuch as it could only occur under conditions of obstruction, and this obstruction is abundantly sufficient to produce the disease from the usually recognized cause, the absorption and

diffusion of biliverdin by the blood. It is a useless, untenable and non-demonstrable pathology which is thus advocated, and inasmuch as the treatment for both of these kinds of jaundice is similar (viz.: the removal of obstruction) there can be no necessity for incorporating such a refinement of pathology in a work confessedly clinical in character. It is a contradiction of his empirical teachings.

In connection with the subject of tetanus, Niemeyer offers a very suggestive and rational reflection, viz: that inasmuch as muscular contraction is only possible where there is nervous integrity, it is useless to look for nerve lesions at the post-mortems of those who have died from tetanus. It is remarkable that he says nothing of the calabar bean in this connection. There is, however, no further space that can be given to this portion of the review.

In a clinical work, whose author is an empiricist, it is interesting to analyze what is taught in regard to therapeutics. Niemeyer has no confidence in the lancet; he would use it in such very rare cases, that his teaching amounts to proscription of a weapon which the thoughtful are beginning to think has been too completely discarded. Mercury he uses but little. He has little or no confidence in its cholagogue effect, and none in its antiphlogistic powers. He uses it in cases of membranous exudation, croupal bronchitis, true croup, etc.; also in catarrh of the respiratory and intestinal tracts. He also uses it in typhoid fever, believing that in five grain doses, administered early (one or two doses being enough), the disease may be jugulated. He derides the use of mercury in producing absorption of effusion, and relies, in all such cases, upon iodine locally applied and internally administered. Quinine he believes te be antipyrectic in both symptomatic and idiopathic

fevers, including typhus in all of its manifestations. Digitalis he accepts as a heart tonic. He believes that it reduces the pulse without injuring the patient in any way. *He uses digitalis even in cases of dilatation of the heart.* In dropsical effusions he relies upon it almost exclusively, giving conjointly a full milk diet. The use of cold water is spoken of in even extravagant terms. In pleurisy and pneumonia he applies cloths, *saturated with cold water, to the chest every five minutes.* The results are excellent, and he has had no bad effects from this practice.

Niemeyer uses few medicines, but he uses them fully, freely, and confidently, claiming that he uses those most whose virtues he has tested oftenest. He is bitterly opposed to the fashionable nihilism of the present day and scouts the idea that disease tends to recovery. Disease, he claims, must be treated promptly and decisively, and treated with those means which clinical medicine has proved to be efficient and reliable.

The style of Niemeyer is terse; his method simple; his mode of analysis concise and comprehensive. One looks in vain for pleonasm, complexity, or ambiguity. Compilation is a large element of the work. It is done with rare judgment and discrimination. His pathology embraces most of all that is to be found in eph emeral, current, or classical medical literature. His therapeutics are simple and decided. His success as a teacher and author is unquestioned. His merits, personal and professional, are everywhere manifest. His work is most earnestly recommended.

The translation is excellent and free from idioms. The publishers have executed their part of the work excellently, and their publication has already and deservedly taken rank with the best works before the medical public.

I. Myxoma—Hyperplasia of the Villi of the Chorion. By A. D. Sinclair, M.D., etc., Boston.

II. The Intermarriage of Relations. By Nathan Allen, M.D., New York.

III. Marriage of First Cousins. Report of Special Committee of the Kentucky Legislature. By Smith M. Hobbs, M.D., Frankfort, Ky.

IV. Report of the Commissioners of the Kentucky Institute for the Education and Training of Feeble Minded Children. Frankfort, Ky.

V. Nocturnal Enuresis and Incontinence of Urine. By F. G. Snelling, M.D., New York.

VI. External Perineal Urethrotomy with a New Mode of Operation. By J. W. S. Gouley, M.D., etc., New York.

I. This pamphlet gives succinctly, an account of the hypertrophy of the villi of the chorion (with drawings) of a woman who aborted with alarming hæmorrhage, at the third month of pregnancy. The author gives no views of his own, as to the pathology of this case, and the reader is to determine, whether the abortion was caused by degeneration of the chorion, resulting in death of the fœtus, or whether the death of the fœtus was antecedent to this hypertrophy of the chorion. The report is well made, and is particularly valuable to those interested in uterine and fœtal pathology. The extrusion of these masses was induced by the use of ergot and sponge tents. The details of the case are instructive and interesting.

II. This paper evinces marked familiarity with this interesting subject and is highly creditable to its author. It is the result of much reading of literature not usually examined, and the facts given with the author's deductions, are interesting. He adopts the view, fast gaining the confidence of the profession, that mental and physical degeneration are due not to the intermixture of kindred but of tainted blood. His reasoning is drawn from the

facts of comparative physiology, from the history of the Egyptians, Persians, etc. It is clear that legislation on this subject is ill-advised and based on premises that can not be scientifically demonstrated to be tenable. There is no reliable evidence of the fact claimed, that the marriage of relatives, springing from healthy parents, is productive of either mental or physical degeneration.

III. In this Report made by a special committee of the Kentucky Legislature, the opposite view on this subject is advocated. It is believed that the views published are erroneous and illogical, and that legislation on this subject would be useless and pernicious. The Report is drawn up with ability and represents the views of many able men who have investigated this subject.

IV. This Report consists chiefly of a report made to the Board of Commissioners, by Dr. E. H. Black, the Superintendent of the Institution. Antecedently to this there is a short but excellent report from the present able Board of Commissioners to the Legislature. This Board is well chosen and represents unquestioned ability and excellent judgment. It consists of Hon. A. Duvall, chairman, Hon. John Rodman, Judge M. B. Chinn, Hon. James W. Tate, Hon. Hart Gibson, Hon. W. L. Vories, and Nelson Allen, Esq. The worthy and successful teachers are Misses W. E. Holding and Delia Holding. The matron is Mrs. Julia Black, the secretary Hon. J. A. Dawson, and the treasurer Geo. W. Gunn, Esq.

The report of Dr. Black is worthy of all commendation. It is able, judicious, concise, clear, and instructive. It shows that in selecting him as the superintendent and physician of the Institution, the legislature exercised unquestioned wisdom and discretion, and it is to be hoped, for the welfare of the Institution, that he will long be allowed to administer it with his present manifest ability and sound judgment. This report shows that it was in

consequence of the conservative and humane recommendations of Governors Morehead and Magoffin that this Institution was established, and that to the Hon. John Rodman belongs the honor of having drawn and introduced the bill for its establishment. Its first superintendent, Dr. James Rodman (the present distinguished and successful superintendent of the Western Lunatic Asylum of Kentucky), during the three years of his incumbency discharged his responsible duties with such ability as to render the Institution, from its incipiency, an unquestioned success. Upon his resignation, by some inadvertence a clergyman, Rev. W. Abbett, was elected to fill the vacancy, but, with all the care, wisdom, and discretion that he could bring to the discharge of his duties, it was evident that such an office could be administered only by a physician. Dr. Black was therefore elected to this office in March, 1868, and has since that time occupied it with distinction and success. In his Report, Dr. Black analyses with brevity, but with sound judgment, the following subjects: What is idiocy; early evidences of its existence; general symptoms; defects of special senses; defects of body; defects of mind; causes of idiocy; can the idiot be taught; claims of the idiot for education; importance of classification; closing with a few recommendations in regard to the establishment of an asylum for the incurable. Those who would learn, reliably, something in regard to these interesting subjects, can doubtless obtain a pamphlet from Dr. Black, at Frankfort, Ky. The Institution is a decided success. It is now being enlarged and, if allowed to remain in charge of its present able board and successful officers and teachers, will confer an abundant reward upon the State in return for its philanthropy and munificence.

V. This pamphlet can not be justly analyzed in the small space remaining. It is sufficient to say that it is

a highly scientific production, well digested and well presented. It gives, in a small compass, more accurate and reliable information than can be obtained elsewhere. Those desiring copies of it can address its authors, Drs. Carroll and Peters, the editors of the New York Medical Gazette, in which successful, able, and instructive journal it originally appeared.

VI. The same must be said of this pamphlet. It is worthy of an extended notice, but this is impracticable. The object of introducing its title is to call special attention to the merits of the work, that all interested may learn in what way they may obtain copies of it. This pamphlet is reprinted from the New York Medical Journal, whose editor, Dr. Edward Dunster (munificently supported by the Appletons as publishers), has made this journal an honor to the great city in which it is published.

A Course of Practical Chemistry for Medical Students. By W. Odling, M.D., F.R.S., etc., etc. Henry C. Lea, Philadelphia. 1869. Pp. 261.

This work will not be generally used by medical students, from the fact, apparent throughout the volume, that it assumes a knowledge on their part which seldom exists. As a rule, students know very little indeed of chemistry when they enter medical colleges, and they will not have learned enough of it to render this volume useful until their connection with colleges ceases. As a work for the practitioner it can not be excelled. It is written plainly and concisely, and gives in a very small compass the information required by the busy practitioner. It is essentially a work for the physician, and no one who purchases it will ever regret the outlay. In addition to all that is usually given in connection with inorganic chemistry, there are most valuable contributions to toxicology, animal and organic chemistry, etc. The portions

devoted to a discussion of these subjects are very excellent. In no work can the physician find more that is valuable and reliable in regard to urine, bile, milk, bone, urinary calculi, tissue composition, etc. The work is small, reasonable in price, and well published.

MISCELLANEOUS.

"Non Omnes Eadem Mirantur Ament Que."

Analysis of the Life of Dr. John Collins Warren.—This interesting man was born in Boston in 1778, and was the son of Dr. John Warren, of that city, a physician no less distinguished as a private practitioner than as a skillful surgeon in the public service during the revolutionary war.

He entered the Boston public Latin School at the early age of nine years, and was prepared for Harvard College at fifteen. During his school life he is represented as having been a boy of high moral feelings, grave and reserved in demeanor, and in his habits orderly and regular to an unusual degree. This reserve, which continued through life, was only the vail which covered a nature singularly warm and kind, and capable of devoted attachments.

During his school and college life none ranked higher than he in his classes, and none exhibited a finer promise of future usefulness. At Harvard he graduated in 1797 and remained for a year at home studying the French language. The choice of a profession was a source of difficulty. His father, having tasted the hardships of a physician's life, advised him to choose in preference any other profession, or to enter into the mercantile business. The condition of trade at this time, however, was seriously deranged by the troubled state of Europe, so he gave up this idea and indulged his preference for his father's profession. The following year he left home for London in order to gain the advantages afforded by foreign hospitals. He devoted some little time to seeing the city, etc., before he entered upon his duties as a "Dresser," the name given to those students who have the advantage of

practising on all simple surgical cases—dressing the wounds themselves. The "Walkers," on the contrary, are only allowed to see what is done, and their expenses are only one half. He entered his name as "senior dresser" to William Cooper (uncle of Sir Astley Cooper), "one of the best and most eminent surgeons in London." Dr. Warren often spoke in admiring terms of the two Coopers, who were afterwards associated. He devoted all his time and energy to his hospital practice and to the study of anatomy, surgery, and midwifery, and had from thirty to forty patients entirely under his care. He wrote to his mother at this time: "I am the luckiest dog in life; I was called away at the end of the last period to a dislocated shoulder which I have reduced in a very handsome style. Within three days of my week I have had one fractured leg and another that we thought was fractured at first; one fractured rib, and a dislocation, besides two or three trifling accidents. I have been exceedingly fortunate every way, and I really begin to think I shall be famous." In September, 1800, he left London and went by way of the lakes to Edinburgh, where he studied nine months, giving special attention to the lectures of Drs. Hope on chemistry. Leaving there for Paris, in July, he entered, under Baron Dubois, the Hospice de l'Ecole de Medicine, for one year. He lived in Dubois' family, which was of great advantage to him in every way. During the Spring, he attended the lectures at the Jardin des Plantes. Here were Fourcroy, Cuvier, and Desfontaines—all of whom afterward attained to much distinction.

At this time his father was becoming very infirm, and daily more anxious to have the assistance of his son, who accordingly returned to Boston in the latter part of the year 1802. He engaged very actively in assisting his father, who very shortly afterward retired altogether. He had at this time sometimes as many as fifty patients to visit daily, and at first he experienced a good deal of trouble in proportioning his doses, as this was a branch of his business with which he had no practical familiarity. He learned from his father habits of great rapidity, and acquired the power of doing a great deal of business in a very short time. In 1803 he became an active member of a Natural Philosophy Society, and some time after he was made joint editor of "The Monthly Anthology," one of the ablest periodicals of Boston. He belonged

also to a private medical society, in which were Drs. Jackson, Dixwell, Coffin, Ballard, and Howard. One very important change in the study of medicine was made by him. He introduced demonstrations upon the real body instead of the wax figures, which up to this time had been used at Cambridge.

In 1809 Dr. Warren published a paper on organic diseases of the heart, a subject which had not received much attention in this country.

In 1810 the legislature established a branch of the medical school of Harvard University in Boston, in which Dr. John Warren was chosen Professor of Anatomy and Surgery and his son was made his adjunct. He succeeded to his father's chair in 1815. He also lectured on Midwifery and Physiology. Dr. J. C. Warren opened the first public dissecting room in Boston in 1809. From this period until I820 a regular series of steps was taken toward the formation of a hospital. When this institution was at last successfully established in 1821, Dr. Jackson became the physician and Dr. Warren the surgeon. He was the president of the Massachusetts Medical Society for two years and of the Massachusetts Temperance Society twenty-seven years. For eighteen years he was engaged in partly editing "The New England Journal of Medicine and Surgery," and he was still connected with it when, in 1828, it took the name of "The Boston Medical and Surgical Journal."

Dr. Warren's unwearied industry, his faculty of throwing himself so heartily into many enterprises, enabled him to accomplish a vast deal. He was a clear and able writer, an operator of great caution, as well as unusual skill. Always before operating he prepared himself deliberately for his work by reflecting upon the method required, writing out a list of every possible contingency and every instrument which might possibly be needed. In important cases he often practiced the operation upon the dead subject. "Cautiously and thoroughly" was his motto, and well did he illustrate it. Bandaging was also to him a science, and one of the greatest improvements which he instituted was in the little use made of the needle and ligature in closing wounds, using instead adhesive straps and bandages. No one can say that he fell into his father's place without trouble to himself, for this was far from being the case. Throughout his life energy, both of mind and body, seem to have distinguished him

remarkably. In 1828 he engaged with much industry in editing his journal; he had an extensive practice, medical and surgical; he was an honest worker in the Episcopal Church (of which he was a member), and he was also actively engaged in the cause of temperance. In winter he breakfasted by candle light, and often he would not retire until the early hours of morning.

He introduced many new operations which had not hitherto been performed in this country. He was the first here (amid much opposition) to operate for strangulated hernia. He introduced the operation for aneurism and performed it with much success. In one case he extirpated the clavicle and he performed the operation for removing the upper and lower jaw.

In 1837 he published his "Surgical Observations on Tumors," a thick octavo volume with plates. In 1854 he published a small work on Fossil Impressions, and in 1855 an interesting account of The Great Elm Tree on Boston Common. In 1837 he returned to Europe, taking his family with him, but leaving his son, Dr. J. Mason Warren, in charge of his practice. He visited diligently at all the hospitals and acquired much new information, besides attending a regular course of dissection with a French surgeon. During his latter years he interested himself greatly in natural history, and possessed the most perfect skeleton of the mastodon which exists. He gave his valuable museum of morbid anatomy to the Massachusetts Medical College.

The last paper which Dr. Warren wrote appeared in the Boston Medical Journal in May, 1855. After this period his health failed very much. He was seventy-seven years of age, and during the remaining months of his life he practiced very little, seeming to care only to spend his days with his family. Early in the next year he had an attack of ophthalmia, which was followed by several attacks of vertigo. After one of these he contracted a severe cold, which proved fatal to him. For a week he failed gradually and ceased to recognize those around him. He died early Sunday morning, May, 1856. Dr. Warren was twice married, first to a daughter of the Hon. Jonathan Mason, in 1802, and afterward, in 1843, to the daughter of Gov. Winthrop. By his first wife he had three sons and three daughters.

Dr. Warren performed the first surgical operation with ether which had ever been attempted, and he devoted

much time and attention to investigating the subject. He held for many years the position of president of the Boston Society of Natural History, and in 1849–50 he was elected president of the American Medical Association.

These facts have been chiefly obtained from the life of Dr. Warren published by Mr. Edward Warren.

DUALINE—GUNPOWDER SUPERSEDED.—In Central Europe, the attention of mining and military engineers is at present much engrossed with the astonishing effect produced by the explosion of small quantities of "dualine," a recently introduced explosive agent. Its inventor had for several years occupied the position of assistant director of the royal powder mills at Spandau, near Berlin, when he exchanged his commission in the royal artillery for the place of technical director of a nitro-glycerine manufactory offered him by Mr. Nobel, the inventor of nitro-glycerine. Several months had elapsed—a time sufficient for lieutenant D. to have become intimately acquainted with the fabrication of nitro-glycerine—when an explosion occurred that caused the loss of several lives and the destruction of the establishment. Lieutenant D. himself had been badly burned, but resumed his duties as soon as the manufactory had been rebuilt. Being an accomplished chemist, and perhaps bethinking himself of the adage, "a burnt child dreads the fire," Mr. D. aimed, naturally enough, at the discovery of a process by which to diminish the dangers attendant upon the fabrication, storage and application of nitro-glycerine. The result of his and Mr. Nobel's combined continued efforts was next the invention of "dynamite," an explosive agent fully as powerful as nitro-glycerine, and yet in every way less dangerous in its fabrication, transportation and application. The objections to the use of dynamite are, however:

1. The development of noxious gases by which the miner is prevented from resuming work soon after the firing of the blast. (Miners are known to have been taken ill from entering a mine fully an hour after the explosion had taken place).

2. At a low temperature dynamite will pack together, and can not be exploded. The warming process must be employed, whereby the danger of a premature explosion becomes imminent.

3. Dynamite, even when enclosed in a well lamped blast hole, can be exploded only by means of a peculiar cap or fuse, the necessary application of which renders the use of dynamite in this respect more expensive than the use of common powder.

4. Like nitro-glycerine, dynamite is, in its action on rock and coal, almost too violent; it crushes them, especially near the blast hole, into dust and small fragments, instead of tearing them into large pieces and lumps.

5. As recent experiments in Sweden have proved, dynamite is not a suitable material for the bursting charge of shells, for the projectile charged with it almost invariably burst, even before having reached the muzzle of the gun.

Of these objections, the two first ones named already appear weighty enough for causing with the mining and military engineer a desire to possess and explosive agent that should combine all the advantages of nitro-glycerine, dynamite and powder, without sharing the defects of either of them. Such an agent is represented in "dualine."

Dualine is a coarse powder of a light brown color, looking very much like sawdust, or like Virginia smoking tobacco. It will neither decompose (even by being accidentally brought into contact with acids), nor congeal, nor paek together, nor lose any of its properties during a spell of cold or hot weather. It is immaterial whether the magazine in which dualine is kept be dry or damp, hot or cold.

Dualine, by its explosion, does not cause the development of any noxious gases; miners have been able to resume work immediately after several blasts had been fired in a mine that was not well ventilated.

Dualine, if fired by a flame or coal, will burn in the open air without exploding. Twenty-five pounds of dualine, contained in a strongly made keg, over which a large fire was built, commenced burning rather slowly only after the staves had been burned through. But, if confined in a strong enclosure, as in a well lamped blast hole, in a box of a mine, in a torpedo, etc.; dualine can be exploded like powder by a fuse or spark. The stronger the enclosure is, the greater is the effect of the explosion. In open air, or with a lamping of loose sand, or under water, it is necessary to use a cap in order to cause the dualine to explode.

Dualine is so little sensitive to concussion that it may, without any danger of premature explosion, be used for the bursting charge of shells. Dualine acts on rock and coal less violently than nitro-glycerine and dynamite do; its explosion produces in coal a larger quantity of lumps and round coal than even a corresponding charge of powder would produce.

The remarkable insensitiveness of dualine to concussion and friction, and its inexplosive nature, render it much less dangerous than common powder; it may be stored, transported, and applied with hardly any risk at all. Absolutely cheaper than either nitro-glycerine or dynamite, it is also relatively cheaper than common blasting powder; for hardly one-fifth of the work and time required in using the latter is needed for successfully operating with dualine.—[*Ex.*

The Case of Surgeon Green.—The case of Passed Assistant Surgeon Green, of the United States Navy, deservedly attracts much attention. It seems that he was ordered by the captain of the Nipsic, on which he served, to return one of his sick men to duty. This Surgeon Green refused to do, and he would have disgraced the medical profession if he had done so. He was arrested, tried by court martial, found guilty of disobedience of orders, insubordination, etc., and sentenced to suspension from rank, on furlough pay, for two years, and to be publicly reprimanded by the Secretary of the Navy, the order reprimanding him to be read to the officers and men of each naval station and vessel in commission. It will scarcely be credited that Secretary Robeson approved of this infamous "finding," but to confer a charity (intolerable under the circumstances) the reprimand only was administered, the suspension from rank being remitted. Such a finding and the approval of such a finding are a disgrace to the service, while Surgeon Charles L. Green will be sympathized with and admired by all true men who are ready to support a brave and conscientious officer in the discharge of a manifestly humane, and unavoidable duty.

The tyranny of the line officers over the general staff of the navy calls aloud for redress. There is no wonder that so many vacancies exist in the medical department of the United States navy. Every independent medical man must sympathize with the medical officers of the

navy and have a hearty contempt for those who would enter its medical department as it is at present managed. Surgeon Pinkney, who represented the navy last April at the meeting of the American Medical Association, stated that the medical officers of the navy were satisfied with recent orders and arrangements in their behalf. It seems that this was by no means a just report of their case, as most of the naval medical officers protest publicly, over their signatures, against this statement. Surgeon Pinkney has been sent by the navy department upon a most delightful excursion—a European inspection tour!

Knowing the fact that absolute or *strong* alcohol will quickly *set* the fibres of common sponge, after having been moulded or compressed into any given size or shape, I was led to the following quick and easy method of preparing sponge tents, tampons, etc. The sponge is first thoroughly moistened with water and pressed as dry as the strength of the hand will permit; then having formed it into the desired shape and size by the hand, or by pressing into a quill or any other tube or mould, it is immersed into the alcohol. If the spirit is sufficiently strong (90 to 100 per cent.) the sponge is *immediately* set into the given shape, which it retains perfectly after the pressure or mould is removed. It is then hard, firm and inflexible, and may be trimmed to a sharp point or any other desired shape. To restore it to its former size and shape it is only necessary to moisten it with a few drops of water. The alcohol sets the sponge perfectly, whether the amount of compression be much or little, so that the degree of dilatation, attainable by the use of tents thus prepared, will of course depend upon the size after moulding and the degree of pressure used. As this process of preparation works perfectly and *without* delay, its advantages are obvious.—[*Boston Med. and Surg. Jour.—Cin. Lancet and Observer.*

Lithexer. (Robert and Collin). This is a very simple and most efficacious instrument, very recently devised by M. Collin, for removing the debris of a calculus after lithotrity. It consists of a silver catheter, passing, by its distal extremity, through the bottom of a four ounce vial. To the top of the bottle is applied a rubber bulb. To employ it, water is first passed by the catheter into the bladder; the bulb, being then compressed and ad-

justed to the bottle, is allowed to recover its natural size, and, in doing so, draws a portion of fluid from the bladder with fragments of the calculus. Those fall into the bottle and are retained, while the fluid is forced back into the bladder by subsequent pressure on the bulb, again to serve its purpose of raising more fragments, which are in turn deposited in the bottle. The process is continued till the debris is entirely removed.—[*Ex.*

Hygiene of Rice Culture.—A German physician, Dr. Ullersperger, has recently received a prize from the medical society of Valencia, in Spain, for an essay on the best means to preserve the health of the rice cultivators. It is generally known, that as a class, they rarely attain the age of forty years, falling victims to the marsh fever. Dr. U. recommends that rice culture be avoided where good drainage can not be obtained, that instead of common rice the varieties known as Oriza sativa imperialis, Oriza montana and Panicum crus galli, be planted, which requires much less moisture to perfect them, that the houses of the workmen be well situated, aired and drained, that their food be nourishing and *include wine or brandy* in moderate quantities, and that they be encouraged to *smoke tobacco*, which the author regards as an efficient anti-masmatic. Characteristic.—[Ed

Effects of Vinegar upon the Skin.—By the use of vinegar, the Spanish General Vitellis made his skin hang about him like a pelisse. Another Spaniard exhibited himself to Van Horn, Silverium, Piso, and other learned men at Amsterdam; he could draw the skin of his shoulders up to his mouth; and draw the skin of his chin to his breast like a beard; or up to his head so as to cover his eyes. It is supposed to act on the yellow contractile tissue, and has been suggested for use against the contractions caused by burns.—*Med. Gaz.*

A Useful Hint.—In Vienna the use of sulphate of iron as a deodizer has had a most beneficial result. According to La Presse the rats have been so effectually destroyed by the use of green vitrol, that recently Prof. Hurd was unable to procure a supply of these animals for experimental purposes. There is no better or cheaper substitute known as a deodorizer, and if it results in a whole-

sale destruction of these pests we would advise its use freely.—[*Ex.*

To Remove Stains from Linen.—To remove wine, fruit, or iron stains, wet the spot with a solution of hyposulphite of soda, and scatter some pulverized tartaric acid upon it; then wash out as usual. Strong vinegar can be substituted for the tartaric acid if necessary. As the hyposulphite of soda is largely employed by photographers, its price has been greatly reduced, and it can easily be obtained for use in the laundry.—[*Ex.*

Extraordinary Operation.—Dr. Bœhm, a celebrated German surgeon, has recently performed the operation of separating two female children, five years of age, who were joined together in the same manner as the Siamese twins. The German papers state that the operation was attended with perfect success; but *one* of the patients seems to have died the same day. The survivor is in good health.—*New York Med. Record.*

Prof. Ludwig Bœhm, whose fatal illness we reported a short time since, deceased on the first day of August. Among other things Prof. Bœhm was distinguished for the best description extant of the intestinal glands; and his teachings upon the anatomical changes in cholera are classic to this day. He also published important works on strabismus, on the accommodation of the eye, and on other ophthalmological subjects.—*Med. & Surg. Jour.*

Deodorized Carbolic Acid.—Carbolic acid may be deodorized by mixing it in a crystalized form with twice its weight of gum camphor, and adding whiting to the compound. In this form it is said to be valuable both as a disinfectant and as a protection to furs against moths.—[*Ex.*

Abstracts from Many Journals.—The New York Medical Gazette will pay liberally all students and physicians for reports of cases or clinical lectures. This excellent journal is worthy of abundant support. ——A Homœpath in Missouri has recently poisoned an infant when prescribing morphine. The first dose killed the child. The infinitessimal system of medication is becoming as obsolete here as it has long been in Europe.——Small-pox has almost disappeared from Ire-

land. In 1868 there were 20 deaths from it. Thirty years ago the deaths from it in Ireland averaged 5,000 annually. Twenty years ago the average number of deaths from it annually was 4,000.——Famine or relapsing fever has appeared in London.——Samuel Jessup, of Lincolnshire, has just had a fondness for pill taking terminated by death. For five years he averaged 78 a day.——An exchange says that the bakers are the alum-ni of the tradesmen's Union.——At a meeting of the Medical Society of the County of New York, Dr. Burrall presented the photograph of a case of scirrhus cancer of the breast, which had cicatrized under the use of carbolic acid internally and externally, the former method of administration being more efficacious. Dr. Weiss stated that some thirty cases had been thus treated in Paris, in fourteen of which the diagnosis was unquestioned. Drs. Elliott and Whitehead had examined Dr. Burrall's case and had no doubt as to its being one of true scirrhus.—[*N. Y. Med. Gaz.*——If tobacco be steeped in a solution of water-cress the action of the nicotine is neutralized.—[*Lancet.*——Nitrous ether and alum mixed into a paste form a sovereign remedy for carious teeth. —[*London Chem. News.*——Dr. Derby, of the Boston City Hospital, treats suppurating wounds, burns, etc., with dry carbolized earth. He meets with great success. ——Dr. B. W. Richardson, of London, has presented to the notice of the profession a sketch of a circular knife, which revolves with such great rapidity as to prevent the sensation of pain. He calls his method "painless cutting in surgery." The revolutions of the knife are about 25 per second.—[*Med. Rec.*——Dr. H. Robinson, of London, reports a case of pregnancy with an unruptured hymen which he had to incise during the labor.—[*Lancet.*——Dr. Hargis reports a case of most obstinate priapism treated successfully with bromide of potassium; xv grains every two hours.—[*N. O. Jour. of Med.*——The Woman's Medical College of New York is in most successful operation, and receives the warmest support from many distinguished physicians of that city. Professors Willard Parker, J. E. Taylor, Austin Flint, Stephen Smith, B. McCready, A. L. Loomis, S. St. John, and C. R. Agnew constitute the Board of Examiners.—[*Med. Rec.*—— There are only twenty-four homœpathic journals in the entire civilized world. Half of these are in America. So says Dr. T. C. Duncan, of Chicago.——The testimony

in regard to the hydrate of chloral is very conflicting. It seems to be always hypnotic but not anæsthetic. It affects the weak most pleasantly, and has had an unpleasant effect on many in ordinary health. Many are experimenting with it and we shall soon have the truth. ——Dr. Neftel reports three cases of vaginitis and paralysis of the extensor muscles, with saturnine intoxication from the use of lead cosmetics.[—*Am. Jour. Obstct.*—— The exchanges are still giving frequent notices of the successful use of oxalate of cerium for the vomiting of pregnancy.——The Chicago Medical Journal states that a certain medical college in Philadelphia has established an agency in Chicago for the sale of medical diplomas. No attendance upon lectures or examinations required. Terms easy where cash is paid.——Marey, the inventor of the sphygmograph, succeeds M. Flourens in the chair of physiology in the College of France.—[*Dub. Med. Press.*—— Dr. W. A. Gillespie, of Louisa Court-house, Va., publishes, in the Boston Medical and Surgical Journal, October 28th, 1869, the report of a case of alleged artificial anus which he says he cured, with ease, by cauteries and ligature, when the late Prof. Chas. Bell Gibson, of Virginia, had seen the patient and pronounced the case irremediable, though the intestines throughout their entire length were pervious, and their contents passed partially per anum. Will Dr. Gillespie give the facts in detail of this case. These being given, the statement in regard to Dr. Gibson will be amended.——The sweet quinine advertised in the medical journals consists of cinchonia mixed with impure powder of liquorice root.——The researches of Dr. Harley demonstrate that in the juice of the conium we have the best known remedy for chorea. ——In England some journals urge the propriety of medical men securing patents for instruments and surgical appliances. The New York Medical Gazette advocates a similar view. The adoption of this course will not be sanctioned by American physicians.——Mr. Lister, of carbolic acid notoriety, has been elected to the chair left vacant by the resignation of Prof. Syme.——Dupuytren left $1,000,000. Baron Rothschild paid him $20,000 as a single fee.——The Madras Times gives an account of the amputation of a lion's tail by Drs. Pritchard and Miller. It required five ounces of chloroform to produce anæsthesia. At one time the animal appeared to be dead, when Dr. Miller entered the cage and successfully prac-

tised Marshall Hall's ready method.—[*Canada Jour.*— An abortionist in England has just been sentenced to ten years penal servitude. The seducer of the girl was sentenced to seven years penal servitude. When will these infamous brutes receive such just punishment in America? ——The Philadelphia Medical and Surgical Reporter mentions the death of a physician in Scott county, Iowa, from the effects of a hair dye of lead.——German experimenters have demonstrated that, contrary to the common belief among scientific men, trichiniasis is not even generally fatal. "Recoveries are common."—[*Canada Med. Jour.*——Hypodermic injection of morphia will destroy or prevent the pain of a blister. If an opening of an inch in diameter is made in the centre of the blister tissue, healing of the blistered surface will be much accelerated.——A case of commencing traumatic tetanus has been completely cured by the bromide of potassium in large doses.—[*Gazette des Hôp.*——The journals report long discussions as to the benefit or injury of cutting the gums in dentition. The weight of the testimony is still in favor of this old custom. What is the experience and testimony of the readers of this journal? "*ex principiis nascitur probabilitas; ex factis vero veritas.*"——A new styptic collodion: Collodion 100 parts, carbolic acid 10 parts, tannin 5 parts, benzoic acid 3 parts; agitate until a perfect solution is formed. It instantly coagulates blood.—[*Ind. Med. Gaz.*——From a long series of experiments it has been demonstrated that osseous growths can be produced at will by transplanting the medullary matter of bones, thus proving medullary matter to be as efficient in the genesis of bone as is the periosteum. The editor of this journal has long been advocating the fallacy of the old axiom that "denuded bone will die," and has collected facts as well as principles to show that the periosteum is not necessary to osteogenesis. The genesis of bone from transplanted medullary substances is a new and strong link in the chain of the argument.——Mr. Potter treats nævus by the injection of carbolic acid. The tumor is solidified and absorption readily takes place. His success has been marked.—[*Dublin Press and Cir.*—— The endoscope is being often used for examining morbid conditions and growths of the uterus.—[*Cal. Med. Gaz.* ——Prof. Langenbeck, of Berlin, reports cures of aneurism from the injection of the ergot of rye. He has used

as much as 0.18 grammes of ergotine at one injection.—[*Cal Med. Gaz*——Dr. T. J. Kennedy, of Castalian Springs, Tenn., reports in the Philadelphia Medical and Surgical Reporter cases of tardy labor accelerated by the administration of morphine.——In the five years 1863–7, the number of persons who met with violent deaths by poison in England and Wales was 2,097. In 1,620 cases the description of poison is recorded thus: By arsenic, 83; mercury, 58; opium, 114; morphia, 32; laudanum and syrup of poppies, 426; strychnia, 41; prussic acid and cyanide of potassium, 151; essential oil of almonds, 31; oxalic acid, 66; sulphuric acid, 53; nitric acid, 16; muriatic acid, 5; carbolic acid, 5; salts of lead, 242; improper medicine, 17; overdose of medicine, 56; improper food, 33; aconite, 6; belladonna, 6; alcohol, 35; ammonia, 8; hartshorn, 3; chlorodyne, 4; vermin killer, 20; turpentine, 3; phosphorus, 15; sulphate of copper, 3; colchicum, 3; disinfecting fluid, 3; nitrate of potash, 3; chloride of zinc, 8; spirits of salt, 3; cantharides, 2; fungi, 6; mussels, 8.—[*Brit. Med. Journal.*

The Largest Induction Coil in the World.—Of all Professor Pepper's triumphs that to be now seen is most interesting to our profession. He has produced the most powerful induction-coil ever seen, and the results must be of lasting importance. Faraday could scarcely have anticipated the perfection of mechanism which has thus made his discovery of so much greater value than was, till just lately, believed. Till now a coil fifteen inches long and four in diameter was called large. That would light up vacuum tubes and give a spark of six or seven inches. Professor Pepper's new-coil is a "monster," nine feet ten inches long and two in diameter. It gives a spark of twenty-nine inches, perforates plate glass five inches thick, and charges a Leyden battery, forty feet square, by three breaks of contact.

Some difficulties had to be overcome to make the monster manageable—for instance, at first, the contact-breakers were destroyed in a moment on the first trial. But all has been overcome, and Pepper's monster may be seen in wonderful and terrible action, and will not only be a source of amusement to the many, but will, we cannot doubt, hasten many important discoveries.

The core of this new coil is of soft iron, formed by a bundle of straight wires, each five feet in length and

.0625 of an inch in diameter. The diameter of the combined wires is four inches, and the weight of the core is 123 lbs. The primary coil is of copper-wire of the highest conductivity, and weighs 154 lbs. The diameter of this wire is .0925 of an inch, and its length is 3,770 yards. It is wound round with cotton, and makes 6,000 revolutions around the iron core. The secondary wire is 150 miles in length, and .015 of an inch in diameter. It is covered with silk, and is wound into an outer coil 50 inches in length. The primary wire is insulated from the secondary by an ebonite tube half an inch in thickness, and the whole is enclosed in another ebonite tube and mounted upon substantial supports also covered with ebonite. The galvanic current for the primary coil is furnished by a Bunsen's battery of forty cells.—[*Medical Prees and Circular.*

Postural Treatment of Fifteen Cases of Prolapsed Funis.—Dr. M. Yarnall states (Medical Archives, March, 1869), that in fifteen cases of prolapsus of the umbilical cord, occurring in the practice of Dr. T. L. Papin, of St. Louis, reduction was effected by placing the patient on her elbows and knees in the position recently advocated by Dr. Gaillard Thomas, of New York. "Of the fifteen cases, ten were born alive and did well; of the five remaining cases all of whom died, one died from subsequent compression of the cord with the forceps after the cord had been successfully returned; in another the cord was completely severed with the same instrument; one died from the too free administration of ergot, and the remaining two were cases in which the children were in the transverse position, and no retaining of the cord was possible, as there was no engaging portion of the child to keep it up, and by the time the uterus was sufficiently dilated to turn and deliver, the children were dead. In every case here reported the cord was fully prolapsed, being in some entirely out of the vagina, and in several it was extraordinarily long and large. In two instances I witnessed the operation, Dr. Papin being at the time my preceptor, and I know several of the children who are now living in this city."

An Aged Primapara.—In response to the inquiry made through the London Lancet, with respect to child-bearing in advanced life, Dr. Cachot, of St. Mary's Hospital, in-

forms us that he delivered in that institution a female of her first child, at the age of 53 years, and again in sixteen months. The labor in both cases was tedious, from inertia of the uterus, and required the forceps. The mammary glands enlarged, but produced no milk. The children lived in both cases.—*Pacific Med. and Surg. Jour.*

Early Pregnancy.—Dr. Horwitz was called to a pregnant girl who had scarcely reached her 12th year, and of whose age there could be no doubt. The menses first appeared during her 10th year and continued regularly. She went through her pregnancy very comfortably. The pelvis was well formed and capacious. The labor proceeded very favorably and terminated in ten hours with the birth of a strong living male child. She went on very well and had a plentiful secretion of milk. References are given to other remarkable cases of the kind on record.—[*Petersburg Med. Zeitschrift.*

Civiale's Collection of Calculi.—Not long before his death Civiale exhibited to the French Academy his collection of urinary calculi from 2,700 patients operated on by him during the 43 years of his professional career. In 1,600 of the number he had performed his favorite operation lithotrity.—[*Pacific Med. and Surg. Jour.*

A Physiological Curiosity.—We are indebted to the kindness of Prof. Austin Flint, Jr., for the report of this curious case. The report is extracted from a communication to him by Mr. Wm. H. Seward, student of medicine, Walnut Grove, N. Y.:

In June last my attention was called to a young lamb upon my father's farm, apparantly a perfect female, which presented a full flow of what appeared to be normal milk. This animal was about one hundred and fifty days old, and, in view of the extraordinary development of the lacteal function, I made, assisted by my preceptor, a careful examination after death. The uterus, ovaries and fallopian tubes were absent.—[*Am. Jour. Med. Sci.*

Dr. M. Gonzalez Echeverria relates (Medical Record, March 1, 1869) an interesting case of a man æt. 67, who from youth was subject to epilepsy, and who for months before his death experienced dizziness when attempting to walk, with difficulty in moving or protruding his

tongue. He died suddenly while straining at stool, in consequence, as the post-mortem showed, of rupture of an aneurism of the right vertebral artery, near its junction with the left to form the basilar trunk. The left artery was equally distended; a clot, plugging the calibre of both vessels at their fusion, being the cause of the aneurismal dilatation. There was also sclerosis of the brain, medulla oblongata, and spinal cord; also degeneration of the ganglia and nerves, connected with an herpetic eruption on the chest.

Dr. E. observes: "It is worthy of note that, with the above local disorganization of the spinal gray substance, the patient did not complain of anæsthesia in any of the limbs. The case distinctly shows that lesion of the third left frontal convolution may occur without any loss or defect of speech, as already substantiated by other instances; finally, this rare example of hæmatorrachis and aneurism in both vertebral arteries also confirms the manner in which the dilatation may be occasioned by plugging of the vessel, as first explained by Dr. J. W. Ogle." —[*Am. Jour. Med. Science.*

Longevity.—Some remarkable cases of longevity in the United States are related in Dr. Fitch's well-known Treatise on Consumption. Among others, the following: Henry Franciso died at Whitehall, in the State of New York, agen 134 years. He beat the drum at the coronation of Queen Ann, and was then 16 years of age; he did not die of old age, but of fever and ague. John Hightower, residing in Marengo county, Alabama, died January, 1818, aged 136. A. Paiba, Charleston, South Carolina, died 1782, aged 142. Wm. McKein, Richmond, Va., died 1818, aged 130. Martha, wife of a Mohegan chief, died 1806, aged 130. Charles Campbell Lange, Virginia, died 1821, aged 121.—[*Ex.*

Animal Vaccination and Vaccinal Syphilis.—M. Latour, in the Union Médicale, after adverting to the isolated position in which this long debate has left M. Depaul, lays down the following propositions as the legitimate results that flow from it: 1. The degeneration of the Jennerian virus is far from being proved. 2. There does not exist a single authentic example of vaccinal syphilis, properly so called. 3. The excessively rare cases of syphilia inoculated by vaccinnation are explicable by

conditions which completely exonerate the vaccine virus from all injurious mixture. A large number of pretended examples of syphilis following vaccination justify the most serious doubts as to the accuracy of the diagnosis. 5. Animal vaccination, simply as another source of lymph, is deserving of encouragement, although it possesses no real or sensible advantage over vaccination from arm to arm.—*London Med. Times and Gaz.—N. Y. Med. Jour.*

MEDICAL NEWS.

"Nulla Dies, Sine Linea."

THE ARTIFICIAL LEECH.—Mr. Stohlman, of the firm of Tiemann & Co., of New York, has invented what he terms the artificial leech. The apparatus consists: 1st, of a handle about six inches long, in which is concealed a knife that is operated by a spring, the knife revolving with great rapidity, as soon as the "trigger" is touched, and making a painless incision about a quarter of an inch in diameter; 2d, of any desired number of small glasses, with a capacity each of one or two fluid ounces; by placing a few drops of ether in one of these glasses and plunging the glass into warm water, the contained air is rarefied and expanded; the glass is now applied over the incision made by the knife and the air cooling down a vacuum is created and the blood in requisite quantity is easily drawn. The instrument is inexpensive, and will doubtless be useful, where leeches can not be obtained, or where they can not well be applied. Many have a repugnance to the leech that is incredible. In all such cases, this instrument will be useful and it is certainly very convenient.

Arsenic in those poisoned with it is transformed into sulphide of arsenic.—*Ex.*

MURIATE OF AMMONIA.—Dr. Anstie, in a late number of the Practitioner, recommends the muriate of ammonia for neuralgia and myalgia; he also finds it to be an active and excellent emmenagogue.—*Ex.*

CALABAR BEAN.—This medicine has been used with marked success lately in tetanus and trismus neoratorum.

It was administered cutaneously, the doses being from 1.30th to ¼th of a grain of the extract; one case of traumatic tetanus and two of trismus were thus relieved.—*Ex.*

AMBLYOPIA.—The Practitioner reports a case of amblyopia permanently cured by hypodermic injection of strychnia; the dose used at first was 1.12th of a grain, gradually increased to ¼th of a grain.—*Ex.*

PRESERVETION OF DEAD BODIES.—An injection of three parts of glycerine and one of carbolic acid has been found to be the very best preservative and deodorizer tried.—*Ex.*

A VALUABLE SUGGESTION.—That druggists, in selling a poison, should use a label giving the antidotes for the poison.

VENTILATE SEWERS AND NEVER TRAP THEM.—The latest and one of the best hygienic laws adopted in England. The reasons and advantages are evident.

HEAT OF THE MOON.—Several beautiful instrumental investigations have demonstrated that there is a palpable heat in the lunar ray.

LOUIS NAPOLEON.—It is asserted, on what appears to be good authority, that the Emperor is suffering from "fungus of the bladder," and there is every reason for believing that his disease will be fatal.

COLOTOMY.—Dr. T. O. Edwards, of Lancaster, Ohio, has recently performed colotomy for "the relief of cancer of the rectum, with stricture."

Contagion of consumption in the lower animals has been conclusively established. The poison may be introduced by injection, or by inoculation, or by being mixed with the food.—[*Ex.*

DEATHS FROM CHLOROFORM.—The New York Medical Journal reports several deaths from chloroform. The editor says "it is inexcusable to use chloroform when deaths from it are on record by the hundred, and the hundreds are swelling so rapidly that if they were all reported they would soon reach thousands."

NOVEL OPERATION.—Prof. J. F. Miner, the accomplished editor of that most excellent work, the Buffalo Medical Journal, and a most skillful surgeon, has performed the

operation of ovariotomy without clamp, ligature, or cautery. He enucleated the vessels and twisted their extremities. The advantages of this operation are great, and the method proposed is worthy of extensive trial.

A Welcome Work—The sixth edition of Dr. Tanner's Practice of Medicine, has just been published.

Hydrate of Chloral—Acts well as a hypnotic on the weak, but is contraindicated because it produces prostration; it acts badly as a hypnotic on the vigorous, producing restlessness, disturbed sleep, and extreme reduction of temperature. *It is not anæsthetic.* In one stage of its action it produces *hyperæsthesia.* Prostration is induced by its use. It is expensive, costing 50 cents per dose. Its notoriety will be short-lived.

The Oregon Medical and Surgical Reporter.—This is the title of a new journal published at Salem, Oregon. It is edited by E. R. Fiske, M.D., Professor of Theory and Practice of Medicine in Willamette University, and is published by the Faculty of this University. The Reporter is a neat octavo of thirty-four pages, and is published monthly at $4.00 a year. The first number is creditable to all concerned. Wishing the projectors all possible success, the work is with pleasure placed upon the exchange list. Surgeon Greenleaf, so well and favorably known in this city and wherever he is known, is one of the collaborators of this new journal.

The difficulty in obtaining subjects for anatomical purposes is yearly increasing in London, and it is feared that the stringent law on this subject will cause many students to leave for the continental schools. On the first of October, when the city was filled with students, only eight bodies could be obtained; these were divided between the eleven medical colleges.

EDITORIAL.

"Nullius Addictus Jurare in Verba Magistri."—Hor.

American Physicians.—Another year is about giving up its record of facts to history, and it is impossible to avoid an indulgence of those many thoughts which the

season and its surroundings suggest. All men will naturally recur, in their reflections, to the subjects which their avocations, past or present, unavoidably suggest, and it is but the force of a common law which impels the physician to think of his profession, and of the many who are numbered among its representatives. In the indulgence of such reflections, it is but natural that among kindred subjects, he should think of the physicians of his own land, and observe in what respect they differ from their brethren elsewhere.

The peculiarities of physicians are, of course, individual as well as national in character, and while biography alone is competent to reveal the individual organizations of those who interest us, it is evident that the literature of the country must reflect those general peculiarities which, in their aggregate manifestations, give character in part to nations.

No one doubts but that the peculiarity of the German physician is a patient, accurate and elaborate study of every subject that may attract his attention; it matters not whether such study be remunerative or not; whether it be practical in its objects and results or not; whether it be simply empirical in its relations, or whether it be (as is most congenial) severely transcendental, fidelity and severity of investigation are universally and uniformly apparent.

No one doubts but that the peculiarity of the French physicians is an overweening vanity in regard to all that may be French in origin, development and results. An overwhelming pride in their own literature, their own operations, ideas and suggestions, with a notorious ignorance of much, if not all, that is better in the practice, writings and suggestions of other nations. A readiness to sacrifice consideration, caution, constitution and often counsel for hazardous display and temporary notoriety.

To be brilliant is better, with them, than to be safe; to be notoriously novel much more attractive than to be notoriously successful. To operate by the watch brings far more celebrity than to operate with judgment, and to amputate a thigh with the écraseur brings comment, perhaps commendation, but certainly not censure or condemnation. That the French physicians are brilliant, accomplished, progressive and enterprising all admit, but that they are egotistical, vain-glorious, idolatrous worshippers of all that is French, and incredulous of the greatness of others, none will deny.

Who does not know what is prominent and peculiar in the physicians of England? What John Bull is in his commercial marine, in his army and navy, in his warehouses and in his daily life, he is in physic: honest; brave; laborious; sturdy in action and fair in operation; conservative; clear in thought and language; direct in speech; knowing much, but not as much as he believes he knows; merry and skeptical over the enterprise or progressiveness of others, with immense power of developing and improving all that he erroneously derided and disbelieved; cautious; conscientious; deliberate; wise; wonderful in judgment and appreciation. Such is the modern English physician and surgeon.

Add to this picture, ingenuousness, humor, recklessness personal, professional and pecuniary, and there is a fair representation of the modern medical man of Ireland.

Substitute reserve for ingenuousness, deliberate firmness for impulsiveness, speculation and theory for humor, with method for recklessness, and there is a true picture of the average of representative of the modern medical school of Scotland.

Here are pictures of the medical men of the chief medical schools. What is to be said of American physicians?

This can only be said, with any probability of correctness, by those who have been personally familiar with the American physician, as seen in varied sections of his country; or by those who, from constant opportunities of observing American Medical Journals as published throughout this country, can judge of the American physician, as he is represented and as he represents himself, in the pages of American medical literature. Having enjoyed personal relations of an intimate character, with large numbers of medical men in the Northern, Middle, Southern, Western and Southwestern States, and having, for years, also enjoyed the valued opportunity of observing the character of the American physician, as manifested in medical journals published in all sections of this country, the writer feels that there is no presumption and some correctness in the testimony now given on this subject.

Those familiar with the American physician can not but admit, that he is almost invariably self-confident; ready; fertile in resources; ambitious of distinction; independent in thought and action; practical in study and fully as practical in the adaptation of his studies; universally appreciative of merit and an intuitive judge of it; just and generous in conduct; candid and conscientious in counsel; decisive but judicious in practice; original in conception, bold and prompt in execution; overestimating the medical literature and resources of other nations, and underestimating those of his own country; personally and professionally courteous and just in his relations with the medical and general public.

It may be said that this is idle eulogy; it is not; there is a dark side to this pleasant picture. The American physician is too often superficial in his acquirements; too often ready to blend, injuriously, secular labor with those of a strictly professional character; too often seen to

make a trade of his profession, and disposed to adopt little or to study little that can not be made pecuniarly profitable. Worse than all of this, however, he is, while zealous in the promotion of the *science* of his profession, very commonly, criminally indifferent in guarding and developing its character and reputation. It is in this respect that medical men and medical journals in America differ most from medical men and medical journals elsewhere. Foreign journals show that European physicians are as anxious to manifest, elevate, and defend the reputation and character of their profession, as they are to promote and foster its *science*. While it may be true, that in the *science* of our profession lies its *glory*, it is no less true (and far more important) that in its *character* lies its *honor*, or its *life*. While American physicians are laudably anxious and zealous about the first, the promotion of the *science* of the medical profession, all must admit, that they are almost universally indifferent in regard to the second, its public reputation. While they prize medicine and honor medical science so far as these have reference to themselves in their segregate or individual relations in life, they are often profoundly indifferent to them wherever they have reference to physicians in their aggregate or class relations in life. If there is to be a choice between the advancement of the *science* of medicine, in which lies its glory, and the advancement of the general character of medicine, in which lies its honor, or its life, can the American physician consent to foster the first by purse and pen, while in action (if not in thought) he repudiates the last? Is there, too, not an under-current, a taint of selfishness manifest, when the medical man is ready to give time and labor, money and study to develop the *science* of medicine where it is to make him a full pecuniary return, while he

s unwilling to do anything that is only to benefit his medical brethren and the public?

It may be well to mention what is meant when alluding o a development and elevation of the character and reputation of the medical profession, in contradistinction to a development and elevation of the science of medicine proper, as it is held that in neglecting the first while ostering the last consists one of those peculiarities which serve to distinguish the American physician from his brethren elsewhere.

What is meant by fostering the science proper of medicine needs no description. It is the study of medicine in orthodox text-books and journals and a contributing by purse and pen to the support of these books and journals. While European physicians, in common with those in America, foster thus the *science* of medicine, they labor zealously and successfully otherwise to elevate the character and reputation of their profession. This the American physician does not often do. It is in part to call attention to this important subject that these reflections on "American Physicians" are presented.

Through the journals, medical and secular, through private and public influences, and by community of labor, etc,, European physicians have sought to elevate and develop the character and reputation of their profession by inducing successful action in regard to the following subjects: preliminary classical education of a respectable character in those seeking to study medicine; securing reform and improvement in the college curricula; extending the undergraduate term; increasing the requirements for graduation; securing the passage of laws legalizing dissections; punishing with severity the abortionist and the seducer; securing registration tables of births and deaths; disseminating proper laws in regard to quarantine; requiring the payment of experts when

called as witnesses in courts of law; securing health officers who are an honor to themselves and the communities employing them; placing health officers in such a position that they not only secure wise legislation in regard to public drainage, and the ventilation of public buildings, but they instruct communities in regard to the essential laws of hygiene (thus honoring medical science and protecting life); the creation of beneficent and essential vaccination laws; removing the cellar population of cities and towns by securing the enactment of such laws, State and municipal, as shall prohibit an inhabitation of cellars; securing hygienic inspection of tenement habitations, guarding thus against overcrowding, with its consequent disasters, low fevers, physical disorders, and vice, etc.; the creation of a beneficent system of poor-house laws, buildings, and management; enforcing cleanliness, good diet, and general hygienic efficiency in the navy and in the commercial marine; banishing from cities manufactories inimical to the public health; forbidding intra-mural burials; abrogating absurd laws in regard to the destruction of canine and feline animals during the so-called "dog days"—laws which are a stigma wherever they prevail upon both the scientific efficiency and the common sense of the medical profession; the establishment of public baths for the people; the use of "morgues" for the identification of the unknown dead; securing by law the origination and development of pathological museums in all public hospitals, by having a physician as a curator (salaried or not), who shall be present at all post-mortems in the hospital and preserve the specimens of value and interest for the hospital museum; banishing forever the degrading spectacle of public executions; securing the erection and equipment of observatories for the recording of meteorological facts, fostering thus the important study of climates and climatic diseases; founding children's hospitals and

"foundling hospitals;" creating small rural hospitals, to which may be transferred, for change of air and general recuperation, the broken-down inmates of city hospitals; securing the enactment of wise laws for the protection of those who, as confirmed inebriates, can not psychologically be justly responsible to the law for the perpetration of crime, etc.

These and other equally important subjects have secured not only the study and attention of European physicians, but, which is more important, they have evoked their personal and coöperative action, by purse, and pen, and speech; by lyceum lectures, mass meetings, etc. While European physicians have thought deeply on these subjects, have written much and often in regard to them, and have succeeded in inducing full and efficient action in regard to them, it may be said that, practically, the voice and pen, the influence, action, and purse of the American physician have not been exerted in their behalf; that in these vital questions, affecting the life, health, well-being, and happiness of his kind, the American physician has been comparatively inert and indifferent, whilst in regard to questions of medical science, affecting his daily business and individual interests, he has been active, laborious and energetic. Is this a satisfactory and pleasant record for the American medical profession? Are not its members, whatever may have been said to the contrary by the Medical Record, fully as accomplished, humane, philanthropic, enlightened and enterprising as those of the medical profession abroad? If so, is it not time for action? Many may say that this does not particularly concern them; the reader may say that these questions do not particularly concern him, but if they are of great importance, as all admit, does not their consideration and efficient disposition concern *all*? Is it not as obligatory upon one as upon another to act? Can the

honest and conscientious reader then dismiss the consideration of these subjects without acting or resolving to act? Surely he can not leave it to others, and, like a drone in the hive, profit by their action and activity. The medical man (only) understands these subjects, and upon him the public depends for guidance and advice.

Herein is food for the reflection of all; here is a field for the labor of all. Who will first move? The pen must of course be the first mover, and it is not anticipating too much to anticipate that the presentation of these subjects for consideration will stimulate the pens of very many of the humane, the philanthropic, the practical, the brilliant, and the utilitarian in the ranks of the medical profession. To all such the pages of this journal are freely and fully open. Physicians elsewhere first moved through their journals; is it not time that American physicians moved also? Who will lead, suggest, or coöperate? As in writing on medicine proper, it is not necessary to write exhaustive essays (*as is too often the case in America*), but by letters to communicate briefly and familiarly, whatever may be of interest, so in regard to the important subjects that have been here introduced, it will be best for each to contribute in the form of a letter (or otherwise) what may seem to him most important and interesting. It can not be doubted but that the practical good accomplished will represent the sum or aggregate contributions of many. The journals will doubtless contribute their share to this work, but the day for central powers and forces to accomplish much has passed. Power, with the present diffusion of knowledge, must come from the circumference and not from any centre. It must come, not as it once did from editorial pens, but from those of the great body of the profession. A journal is strong and influential only in proportion as it accumulates and diffuses this power; only

in proportion to the success of its editor in making his work the exponent of aggregate opinion.

The subjects herein presented for thought and action are abundant; the minds for analyzing these subjects are still more abundant; the editor, with the kindliest wishes of the season, offers his journal to its numerous and increasing patrons, as the medium of those who, in disposing of these and other great questions, may seek to make still more worthy the character, the record and the reputation of AMERICAN PHYSICIANS.

WHAT IS ITS VALUE.—In reply to numerous inquiries, in regard to the real value of the Craig microscope, the editor has only to say, that while he can not endorse the enthusiastic eulogy written of this microscope by Prof. Loomis, of Georgetown College, while he can not understand why Dr. R. C. Kendall, of Philadelphia, should be able to detect trichinæ in meat with this microscope, when he failed to do so with an instrument costing thirty times as much, he can say (with all possible caution and care) that the Craig microscope does magnify with sufficient power to enable any one to do all that Prof. Holloway succeeded in doing, before and since he published his testimony in regard to it; the blood corpuscle, the pus corpuscle, the character of urinary deposits, etc., may be detected, with accuracy and ease; and in making any examination, the operator can determine, whether the specimen is of sufficient interest to be examined under a lens of greater power. No one, it is supposed, can be so simple as to believe that an instrument costing only $2.50 (or $2.75 with postage paid, as stated in the advertising columns) will magnify as many diameters as one costing $60.00; but that a detection of corpuscular elements in physiological or morbid products may be made with this microscope is unquestionable; the statement has been often made by those whose fairness, impartiality and veracity can not be questioned. The microscope magnifies about one hundred diameters.

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